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Student-Veteran Perceptions of Combat Experience Integration in the Classroom

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Abstract

This qualitative case study explores the perceptions of student-veterans enrolled in graduate-level courses on the role their combat experiences played in their learning. Danish educator Knud Illeris's learning concept provides the lens for the study's exploration of how combat experiences supported or hindered classroom learning within the three dimensions of cognition, incentive, and social interactions. Participants were surveyed on how they believed their combat experiences influenced learning in the classroom. Responses were analyzed for recurring themes and reported in tabular form with example quotes. The resulting 18 themes support the theoretical model. The study conclusion describes how the study outcomes should influence actions by higher learning instructors to improve student-veteran outcomes in the classroom.

A significant number of U.S. service members deployed during the conflicts in Afghanistan and Iraq were exposed to trauma of some form (Thomas et al., 2010). Many of those returning veterans exhibited symptoms of posttraumatic stress disorder (PTSD) or severe depression, which can affect classroom activities and learning processes (DiRamio et al., 2008; Ellison et al., 2012; Tanielian & Jaycox, 2008). These student-veterans contribute to classroom learning activities, but they can also be hindered in their learning if they had been exposed to combat (Spurlin, 2014). Because adult learning models emphasize the recall and use of learner experiences as a means of facilitating adult learning, postsecondary classrooms might not truly support adult learning for this group (DiRamio et al., 2008; Merriam & Bierema, 2013; Spurlin, 2014).

According to Knud Illeris's (2007) learning theory, learning occurs through interactions within three dimensions. The cognitive dimension emphasizes the content of the

curriculum and the ability of the learner to mentally interact with the curriculum. The emotive dimension emphasizes incentive and both intrinsic and extrinsic motivation to learn the curriculum. The social dimension emphasizes interactions with faculty and other learners within the learning environment and considers the value society at large places on the material to be learned (Illeris, 2007, 2010; Merriam & Bierema, 2013). The learning theory also includes the concept of learning barriers in the three dimensions, and any one of those barriers can impair or misdirect learning (Illeris, 2007). This learning theory therefore includes elements of both cognitive constructive and social constructive learning theories with the added component of learning barriers. Illeris's theory provides a more complete description of how adult learners interact with the curriculum and other learners during the learning process (Merriam & Bierema, 2013; Spurlin, 2014). Illeris's learning theory therefore offers a more comprehensive lens to analyzing learning activities in the classroom than other theories.

Dale Spurlin (2014) conducted a qualitative study of student-veterans and concluded that graduate-level student-veterans in both civilian and military institutions of higher learning who had been in combat experienced benefits and hindrances to learning in the three dimensions of Illeris's theory. The study results were consistent with prior research in that traumatic combat experiences could significantly impair or block learning, especially when instructors or the curriculum prompt a recall of those experiences (Glover-Graf et al., 2010). Furthermore, the study indicated that many instructors were unaware of how specific practices or activities within the learning environment could either foster or impair learning among student-veterans (Shea & Fishback, 2012; Spurlin, 2014). This article describes the 2016 study that extended Spurlin's (2014) initial study by increasing the number of participants to better define the practices in the classroom related to the integration of the combat experiences of this specific group of learners that either support or hinder learning among student-veterans.

The students attending the U.S. Army's Command and General Staff Officer Course (CGSOC) provided an eclectic blend of Department of Defense officers with varying types and numbers of combat deployments (U.S. Army Command and General Staff School [CGSS], 2013). These students complete a 10-month curriculum accredited through the North Central Association of Colleges and Schools to deliver and confer a graduate degree (U.S. Army Combined Arms Center, 2016). Furthermore, a large percentage of students attending the CGSOC had completed

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or were in the process of earning a graduate degree from a civilian institution of higher learning (U.S. Army CGSS, 2013). Finally, the Command and General Staff College (CGSC) was an appropriate site for the study because the CGSC curriculum consistently uses an experiential learning model based on David Kolb's (1984) experiential learning theory (Thomas & Gentzler, 2013). Kolb's experiential learning theory structures lessons through a concrete experience shared by learners, a period of learner reflection on the shared experience, learner conceptualization of themes or principles within the experience, and finally an application event where learners apply new formulated concepts (Kolb & Kolb, 2018). CGSC curriculum designers and instructors incorporated learners' prior experiences throughout this experiential learning model in the classroom (Thomas & Gentzler, 2013; U.S. Army Command and General Staff College [CGSC], 2005). The combination of the same students within a classroom over an extended period of instruction, a mix of combat experiences, and a curriculum design that encouraged combat-related experiences as anecdotes in content delivery made this population well-suited to study the effects of combat experiences across all three learning dimensions.

Problem Statement

The research problem presented itself when instructors could either support or hinder student learning. Some classroom activities integrated potentially triggering experiences for student-veterans without instructor awareness of any past trauma, and some instructors were unaware of the possible negative effects certain instructional techniques might have on student-veterans (Spurlin, 2014). While integrating prior experiences into the curriculum is a tenet of adult learning theories, some experiences can actually dissuade learners from interacting with the content of the curriculum or with other learners (Brookfield, 1986; Illeris, 2007, 2009; Merriam & Bierema, 2013; Sitler, 2009). Instructors might also be unaware of how physical and psychological trauma can affect student-veterans in all three dimensions (Burriss et al., 2008; Polusny et al., 2011; Sitler, 2009; Zinger & Cohen, 2010). Without a better appreciation of how instructors create supportive or hindering learning conditions within the classroom for student-veterans, adult learning theory expectations in curriculum design and instructional practice could lead to academic underachievement by student-veterans (Spurlin, 2014).

Purpose and Design of the Study

The purpose of this qualitative case study was to explore how classroom practices support or hinder learning for graduate-level student-veterans within the content of

the curriculum, the learners' incentive to learn the curriculum, and the social interactions between learners concerning the curriculum. Considerations for the study were to explore student-veteran learning from their perspectives and report the outcomes in their own words (Patton, 2002; van Manen, 1990).

This study employed a survey with open-ended questions for students at the CGSOC to solicit their observations about integrating combat experiences in graduate-level classrooms. The questions addressed each of Illeris's (2007) three learning dimensions with individual questions within each dimension addressing ways combat experiences supported or hindered learning. Because students at the CGSOC receive a curriculum based on experiential learning and have a high percentage of combat veterans, the survey was more likely to achieve data saturation by sampling this population at the CGSOC (Thomas & Gentzler, 2013; U.S. Army CGSC, 2005; U.S. Army CGSS, 2013).

Research Questions

The qualitative study explored how student-veterans perceived and processed their combat experiences within the graduate-level classroom (Moustakas, 1994). Consistent with Yin's (2014) case study design, research questions were developed that included how to establish propositions within participant data. The study explored the following research questions modified from Spurlin (2014):

Q1. How do combat experiences support or hinder learning curriculum content for graduate-level student-veterans?

Q2. How do combat experiences support or hinder an incentive to learn curriculum content for graduate-level student-veterans?

Q3. How do combat experiences support or hinder social interaction related to curriculum content within the learning environment for graduate-level student-veterans?

Definition of Key Terms

Content

As a dimension of learning within Illeris's model, content describes the knowledge, understanding, and skills within a curriculum and a learner's abilities, insight, and understanding related to the curriculum. Content therefore encompasses the object of learning and the learner's cognitive approach toward the object of learning (Illeris, 2007).

Incentive

As a descriptor for the emotive dimension of Illeris's model for learning, incentive is the emotional disposition of a learner toward a curriculum, including the learner's motivation and volition to engage with the curriculum content. Incentive describes the manner in which and the amount of mental energy a learner commits to learning the curriculum (Illeris, 2007).

Social Interaction

As a dimension of Illeris's learning model, social interaction is the external exchange between the learner and peers or instructors within the classroom. Social interaction also acknowledges the influence of greater society that establishes the value of the curriculum for the learner. Interaction includes communication and cooperative activities within the learning environment (Illeris, 2007).

Student-Veteran

A student-veteran is a combat veteran enrolled in a postsecondary learning institution subsequent to the combat veteran's wartime service (DiRamio et al., 2008). The length or nature of the wartime service is not considered when establishing student-veteran status because exposure to combat stress in any degree has an effect on all individuals (Vasterling et al., 2006).

Experiential Learning

Learning that is facilitated by references to prior experiences and to new experiences within a classroom is fundamental in many adult learning theories (Beckett, 2010; Brookfield, 1986; Illeris, 2007; Merriam, 2010; Merriam & Bierema, 2013). Educators influence student learning through learning contexts. The applied contexts have been created in the classroom by learning activities and curriculum design, as well as by encouraged classroom interactions (Beckett, 2010). Consistent with Illeris's (2007) model, learning occurs when students interact with the curriculum and when students interact with others within a learning environment (Beckett, 2010; Merriam, 2010).

Jean Piaget (1952) theorized that humans learn through comparing experiences with previous knowledge or perceptions of previous events. The outcome of this comparison results in one of two ways for this study. Either the learner will assimilate the classroom event into his or her mental framework because of similarities between the

experience and the learner's existing knowledge and understanding, or the learner's mental framework will accommodate the dissimilar experience and form a new, better knowledge or perception (Merriam & Bierema, 2013). Emotion and incentive to learn the curriculum influence the degree and manner with which a learner approaches the curriculum (Illeris, 2007, 2010; Merriam, 2010). Adults, in particular, find greater incentive to learn material that is meaningful to them (Brookfield, 1986; Merriam, 2010; Wlodkowski & Ginsberg, 2017). Learner-centered experiences are therefore important in facilitating adult learning in the classroom (Dunst et al., 2010; George, 2009).

Effective educators know their students and are sensitive to the mental models those students hold in order to structure learning experiences that will facilitate learning (Apte, 2009; Kegan, 2009). Social interactions and influences have long been theorized to influence the nature and method of learning (Vygotsky, 2011). Educators should create safe, trusting learning environments that promote incentive to learn and to challenge personal mental models (Nemec, 2012; Spurlin, 2014). Instructors who integrate disorienting experiences, traumatic recollections, or experiences that directly confront mental models without an appreciation of learner readiness for those experiences will not facilitate learning (Nemec, 2012; Pearse, 2009; Spurlin, 2014). However, experiential learning is necessary to achieve higher order learning within adults (Alic, 2008).

Combat Experiences and Curriculum Content

Combat-related stress and trauma can have significant impacts on cognitive processes including learning (Ackerman et al., 2009; Shea & Fishback, 2012). Soldiers returning from combat duty have been found to have a significant level of anxiety, depression, and symptoms related to PTSD (Hoge, Auchterlonie, & Milliken, 2006; Hoge, Castro, Messer, et al., 2004; Institute of Medicine, 2013; Tanielian & Jaycox, 2008; Thomas et al., 2010; Vasterling et al., 2006). PTSD and related symptoms can have a significant effect on memory, attention span, and vocabulary processing (Burriss et al., 2008; Vasterling et al., 2006). Neural imaging also indicated that stress affects areas of the brain associated with language, spatial orientation, memory, and attention maintenance (Dörfel et al., 2010; Vasterling, 2002).

Concussion and mild traumatic brain injuries were common during the conflicts in Afghanistan and Iraq (Taneilian & Jaycox, 2008) and can have significant effects on cognitive functions. The Defense and Veterans Brain Injury Center (2020) reported that physical symptoms for individuals diagnosed with mild traumatic brain injury included cognitive impairments such as difficulty concentrating, difficulty with memory recall, and difficulty with communication skills. Problems with balance, concentration, and social interactions were also prevalent in veterans exposed to concussions (Polusny et al., 2011).

Stress from previous experiences and current activities can adversely affect cognitive performance as well (LeBlanc, 2009). The effects of stress on cognitive activities can be long lasting (Tollenaar et al., 2008). While stress can improve performance in some cases, negative stress consistently results in lower cognitive outcomes (LeBlanc, 2009). Positive outcomes in these studies were due invariably to stress created by the learning activity and reinforced earlier success in the activity learned—not from external sources or unrelated experiences (DeMaria et al., 2010; LeBlanc, 2009). PTSD responses in the classroom can impair cognitive functions by causing a student to experience physical hyperarousal, mentally check out, or pass out based on how the student reacted to the original trauma (Schauer & Elbert, 2010). Furthermore, to avoid a PTSD response, student-veterans with PTSD symptoms might actively avoid classroom experiences or subjects that might trigger a recall of a former trauma (Wald et al., 2010).

Combat Experiences and Learner Incentive

Learning has an emotional component closely linked to cognitive functions based in theory and in brain science; intrinsic motivation is a key component in adult learning (Banich et al., 2009; Dahl & Smimou, 2011; Illeris, 2009; Immordino-Yang, 2011; Merriam, 2010). Learners with an intrinsic desire or motivation to learn outperformed those motivated extrinsically or not motivated at all (Kember et al., 2008; Scager et al., 2012). A lack of motivation has been associated with academic failure (Vanthournout et al., 2012). Therefore, educators should improve the learning environment for students by improving the emotional context for learning (Dahl & Smimou, 2011; Wlodkowski, 1999; Wlodkowski & Ginsberg, 2017).

Another means of improving student incentive toward the curriculum content is applying lesson material to a student's needs and real requirements (Errington, 2009; Kember et al, 2008; Partin et al., 2011; Wlodkowski & Ginsberg, 2017). Authentic learning experiences generate learner motivation toward the subject and reinforce the value of the educational outcomes (Lave, 2009; Wenger, 2009). Enhancing student self-efficacy in learning the material is coupled with improving student incentive (Bandura, 2012; Partin et al., 2011). Therefore, positive learning environments support the learner's cognitive appeal of the curriculum and reinforce personal motivation and self-efficacy in learning it (Cherubini, 2009; Griffard, 2010). Concurrent with this focus is an instructor awareness of the negative influences in students' lives in order to tailor learning activities to overcome or circumvent student disinterest in the curriculum (Cherubini, 2009; Dirkx, 2008; Sitler, 2009). Consistent with Illeris's (2010) model, barriers in the emotive dimension of learning include activities wherein the learner lacks control over the activity, and also classroom experiences that encourage a personal change in the learner that is at odds with his or her prior experiences. Knowing students—especially student-veterans—is critical to effective instruction (Branker, 2009; Uomoto & Williams, 2009).

Combat Experiences and Social Interaction

Social interaction is inherent in adult learning because learners use social context to compare and contrast new information during the learning process (Brookfield, 1986; Lave, 2009; Merriam & Bierema, 2013; Wenger, 2009). Cooperative learning has been prevalent in educational settings for decades, emphasizing the necessity for group interaction and learning from one another (Johnson & Johnson, 2009). It follows then that student challenges with social interaction and communication will adversely affect individual student learning outcomes and those of the rest of the group participating in a cooperative learning activity. This was demonstrated in online learning programs as well as resident programs (Ruey, 2010; Wells & Dellinger, 2011). Negative feedback from fellow learners or the lack of social support in the educational setting can result in academic failure (Johnson & Johnson, 2009).

Learners imitate peers and instructors during classroom social interactions (Immordino-Yang, 2008). They also modify personal values and behavior based on social feedback (Bowman & Dodge, 2011). An inability to follow the social discourse or to interact with fellow learners therefore impairs learning (Spurlin, 2014). Symptoms of traumatic brain injury, stress, and PTSD include difficulty in social interactions and communication skills (DiRamio et al., 2008; Douglas, 2010). This difficulty is despite evidence that traumatized learners might be more socially active than their nontraumatized peers; more interaction is not always a sign of effective interaction (Frazier et al., 2013).

Poor interactions with instructors also adversely affect learning outcomes (Barnard-Brak et al., 2011). David Vacchi (2012) called on educators to foster positive interactions with student-veterans by avoiding discussions that would counter the values and experiences of veterans. Lesley Scanlon (2009) warned that students who have poor interactions with instructors are likely to physically leave the classroom. Graduate-level students are more likely to remain physically in order to complete their degree requirements, but they mentally check out (Spurlin, 2014). Ineffective relationships between student-veterans and instructors can also result from the student-veterans acculturated with self-sufficiency who fail to seek advice or assistance when they struggle academically (Lighthall, 2012). As in the other two learning dimensions, educator awareness of student-veteran experiences and issues is necessary for promoting a positive social learning environment (Spurlin, 2014).

Materials and Methods

A qualitative case study was selected in order to capture richer and deeper participant perceptions than those that might be missed in a quantitative study with prepared responses to the research questions. Furthermore, the use of open-ended questions reduced researcher bias toward the potential outcomes of the data by

relying completely on the statements of participants in the study. This case study followed Yin's (2014) methodology to determine why student-veterans experienced academic support or hindrance related to their combat experiences when those experiences were integrated into the classroom. Yin's (2014) methodology requires establishing the case study's research questions, the use of how and why questions to identify propositions, clearly establishing the unit of analysis, logically linking propositions to the research data, and establishing the criteria for findings. This case study was bounded as the academic environment for the resident CGSOC AY2016 class. The unit of analysis was the individual student-veteran.

Population and Sample

The population (N = 1307) for the proposed study was the resident CGSOC class for AY2016. This group included 1,289 students from the U.S. Armed Forces. Within the U.S. military students, 524 (40%) started the course having already obtained or initiated a graduate degree. The population also included 109 international students and nine civilian U.S. government agency students. Of the 1,027 Army component students, 899 (88%) had previously identified as having combat experience. Combat data for other services was not available.

While qualitative studies cannot generalize to the population due to their reliance on nonstatistical analysis (Merriam & Tisdell, 2015), sampling in size and demographics should represent the population as part of a sound research design (Onwuegbuzie & Leech, 2007). One method of determining qualitative sample size is to have a minimum of three participants per theoretical construct (Onwuegbuzie & Leech, 2007). Spurlin (2014) identified 17 themes associated with student-veterans in Illeris's dimensions of learning. While the intent of the proposed study was not to validate Spurlin's findings, Onwuegbuzie and Leech's (2007) approach justified requiring 51 descriptive textual responses for each question to ensure saturation. A minimum of 10% of the valid responses for any given question above 51 was established as a benchmark to support a common theme for it to be reported (Yin, 2014). This study surveyed the entire student body based on historic CGSC survey response rates and the inability to identify combat veterans in advance of administering the surveys.

Instrument

Data collection for the study was through the use of a survey administered through the CGSC's Verint survey system. The survey questions were adapted from Spurlin (2014). The surveys began with informed consent information describing the nature of the study and the requirements of the participant (Department of Defense

[DOD], 2011; Wright, 2012). Consent to participate was inferred when the participant continued with the survey. Participants could opt out of the survey by simply closing their browser window or they could skip any question without penalty.

The first section of the survey collected demographic information (DOD, 2011). A question regarding combat participation differentiated between students with no combat experience and student-veterans. The body of the survey was composed of open-ended questions that addressed each learning dimension and how integrated combat experiences in the classroom supported or hindered learning. A final question was for participants to share any other thoughts they had on the topic of the study.

Data Collection, Processing, and Analysis

The Verint survey system assigned a control number to each respondent to protect identity; the researcher did not have access to the identities of any respondents. Upon receiving the data, the researcher manually coded the responses for each question and each group using pattern matching of related text against the theoretical constructs of Illeris's model (Yin, 2009). The number of occurrences for each theme for each population group were then tabulated and the themes rank-ordered based on frequency. The results were a finite set of themes for each survey question. The researcher then compared and contrasted the resultant themes with theoretical expectations for the questions.

The resultant themes were reported in relation to each research question with representative comments provided by participants that illuminated the themes' content and influence on student-veteran learning. Negative themes and cases that disagreed with the majority were also reported with participant comments to explore potential issues with the theoretical model and to identify areas where the data contradicts past research.

Assumptions

One assumption was that participants would respond truthfully because there was no compensation or potential for personal gain by misrepresenting themselves in their responses. Based on Spurlin (2014), there was an assumption that participants would identify how combat experiences could both support and hinder learning for student-veterans. The nature of a survey permits time for reflection prior to answering a question; the researcher assumed that participants would be reflective of how combat experiences influenced learning within their classroom activities. A final assumption was that student-veterans with severe traumatic experiences would elect not to participate or would avoid answering a question that could cause them emotional harm.

Limitations and Delimitations

The survey design of the study limited the depth of responses and the potential for the researcher to follow on specific details of an individual response. The actual number and depth of the responses could not be anticipated even with open-ended questions. While the population of the CGSOC provided a dense population for data collection, the transferability of findings from the study might be limited due to the military focus of the population and the curriculum. This limitation was offset by an expectation that some of the participants report experiences within civilian educational institutions. There was no attempt to control or screen the type and duration of combat experience for student-veteran participants. Each response was analyzed horizontally with all responses having equal merit (Moustakas, 1994).

Results

The survey was sent to the 1,307 students in the CGSOC class for AY2016. There were 85 responses from students with combat experiences that included comments in response to at least one question. The researcher looked for patterns in the use of terms and text strings in resulting themes for each question (Fielding & Lee, 1998). Not all comments provided material for analysis. For example, responses of "Yes it helped" were not included in the analysis. The analysis for each question is provided in the following tables and discussion.

Cognitive Dimension

"How have your combat experiences supported your learning the content or material of the curriculum in the classroom?" Eighty responses provided usable feedback to this question and fell within three general themes: context for content, cognitive processes and mental constructs, and no effect (see Table 1, page 14). Six responses were negative. Those responses indicated that biases students or instructors introduced to the class or any classroom PTSD triggers had a negative effect on their learning.

The predominant influence of combat experiences on student-veterans' learning was discovered through context. Students described how their combat experiences provided either a contextual explanation for past experiences or an historical context for learning new concepts in the classroom. The second theme indicated combat experiences also enhanced cognitive skills such as critical thinking, cultural awareness, problem solving, mental toughness in an academic environment, and the use of mental constructs to better understand the material. Decision-making and actions in high-stress combat situations appeared to help students analyze the

Table 1.

Support to Cognition

Theme	Frequency	Example responses
Context for content	36	"I was able to relate my experience to the content of entire books that we actually read." "It gave me a real-world view of the concepts that were being taught in the classroom. I could easily relate to the information being taught, because some of the ideas or concepts are things that I have personally experienced." "Provided me background and a desire to learn more about why things occurred the way they did. I wanted to learn the process to see where in the chain events could be changed but that can only be done by learning the process." "It also allowed me to compare how well I was educated and trained for combat."
Cognitive processes and mental constructs	21	"Reflecting on my combat experiences in conjunction with course material provided me an opportunity to better analyze the situation." "By providing me with perspective that included a reference point to connect doctrine to experience, which allowed me to see how far from doctrine my experiences had strayed." "I used my combat experiences to argue in support of creative solutions to problems that may not directly align with the doctrinally correct solution." "Surviving combat gives you a new perspective on life and suddenly things like stressing out over class deadlines isn't such a big deal anymore."
No effect	14	"Not much at all. The College focus is on Strategic level work and in my experiences I worked at the [battalion] level and below or at the [Joint Task Force] level."
Negative effect	6	"There is probably a fine line between practical experience and educational/academic understanding and room for both, but as often as not individual experiences detracted from the latter."

Note: Themes, frequency of theme within 80 responses, and representative response statements for the question, "How have your combat experiences supported your learning the content or material of the curriculum in the classroom?" Table by author.

curriculum content, appreciate differing viewpoints, and assess their own personal bias toward a topic—especially when the curriculum was dissonant from their combat experiences. Responses that described this effect both in military colleges and in civilian academic settings were noteworthy. Respondents also shared how combat stress put academic stress in graduate programs in perspective, because it allowed students to prioritize and navigate course requirements more easily. These results were consistent with Spurlin's (2014) results.

In contrast, some respondents indicated that their combat experiences had no influence on their learning. As indicated in Table 1, a common trend in these responses was that respondents' experiences did not provide specific examples relative to the classroom content. They did not see indirect benefits of combat as other respondents had identified. Negative effects of soliciting combat experiences in the classroom will be addressed in the section on hindrances to cognition.

The next survey question asked, "How have your combat experiences hindered your learning the content or material of the curriculum in the classroom?" This question sought to identify the barriers that students perceived resulted from their combat experiences. Thematic results for this question are in Table 2 (on page 16).

Most respondents who found that their combat experiences hindered their cognition expressed it in one of two ways: either there was dissonance between the curriculum content and their experiences, or they recognized student-veteran bias toward the curriculum. Dissonance was indicated by comments that described how the outcome or interpretation of personal combat experiences contradicted the content of the curriculum as presented in lesson materials or as expressed by the instructor. Another form of dissonance was that the intended importance of the curriculum material contradicted the way the learner perceived the importance of it. In one response, a student described an occasion where a faculty member without combat experience appeared to favor a book answer over the expressed experiences from students who had combat experience, which caused some students to discredit the curriculum content. The comment "Combat experiences do not align well with the doctrinal solution to a problem" indicated how the theoretical and practical collide in the classroom; the collision forced students to reconcile their perceived differences.

The second most common theme was the observation that combat experiences biased student-veterans against the content of the curriculum. Similar to the dissonance described above, some respondents recognized the disagreement between the content and their experiences but were able to proceed with courseware. They also observed bias in other students if they did not believe they had it themselves. This theme reflected the negative effects described in the first question responses. However, more than half of the respondents to this question stated that their combat experiences did not hinder their ability to cognitively appreciate the content of the curriculum.

Table 2.
Hindrance to Cognition

Theme	Frequency	Example responses
Dissonance	16	"The theory appears to be outdated at times." "The instructors are going to pretend to care but they discourage the students from challenging doctrine and group think." "The material in the classroom is mostly doctrine-based, and unfortunately it is not reality when the rubber hits the road in a combat environment." "If the discussion or material does not relate to my experience, it can cause some confusion especially if the instructor does not have the operational experience to bridge the gap and discuss all aspects of the material and how it might apply on all levels."
Bias	12	"Bias is the big blocker. Learning how to do things the right way doctrinally was challenging." "I feel that my combat experiences have broadened my world view, but I also need to remain cognizant of avoiding having an emotional attachment to things I hold true simply because I fought for them." "I do believe that combat experiences created a frame with I needed to breakthrough to better understand the learned material."
No hindrance	41	"As long as I kept an open mind to perspectives of other people, [my experiences] didn't."

Note: Themes, frequency of theme within 79 responses, and representative response statements for the question, "How have your combat experiences hindered your learning the content or material of the curriculum in the classroom?" Table by author.

Emotive Dimension

The second pair of questions addressed the emotional dimension within Illeris's learning theory to assess how combat experiences influenced the student-veteran's incentive to engage with the curriculum. Fifty-six students responded to the question that read, "How have your combat experiences supported your incentive or motivation to learn the content of the curriculum in the classroom?" The major themes in response to this question included relevance to the future, alignment of experi-

Table 3.
Support to Motivation

Theme	Frequency	Example responses
Relevance for the future	12	"As an individual, my experiences told me what I needed to learn so that I didn't make the same mistakes going forward." "I know the measure of a decision. I know I have gaps in knowledge or understanding and I know the future positions of increased responsibility the very best of Soldiers will feel the weight of my failures." "My experiences really made it more than a professional duty but a moral imperative." "My experiences motivate me to learn more because I understand that getting them wrong will impact many others in a potentially severe way."
Alignment of experiences	10	"They've helped ground subject matter by moving it from a purely academic discussion to real world application." "Wanted to learn the right way and try to see different perspectives and the doctrinal way of doing things. I felt some of my experiences were not the right way even though they worked for me at the time." "Being able to tie real world experiences into an academic setting places lessons into context and really helps me internalize them." "We often see things that contradict our doctrines, our oath and even the humanity. Getting back to the classroom is a good place to realign our understanding and the real world."
Providing a perspective	6	"Made me think more critically about some wartime theories." "Combat experiences are an important part to acknowledge the appearance of biases and fallacies. In combination with the learning objectives, the student will be aware of these aspects in the future. It is like a learning reflective model. This means, the student will be much more adaptable and flexible in future."
No effect	17	"There is nothing specific about my combat experiences that has supported my incentive or motivation to learn in the classroom. It was always there before combat experience, and is likely to remain with me for many years into the future."

Note: Themes, frequency of theme within 56 responses, and representative response statements for the question, "How have your combat experiences supported your incentive or motivation to learn the content of the curriculum in the classroom?" Table by author.

ences, and providing a perspective. Nearly a third of the respondents indicated that their combat experiences had no effect on their incentive to learn in the classroom. The reportable themes are indicated in Table 3 (on page 17).

The most common positive response indicated an incentive to learn when the content of the lesson had a clear relationship with and relevance to any future usage. This response was similar to findings in Spurlin (2014) where student-veterans found motivation to learn for personal growth in a particular area. Some students found incentives to learn when the material clearly represented knowledge or skills that would likely be needed in their chosen career field.

Some student-veterans found incentives to align their past experiences with doctrine or theory. Although successful in their combat experiences, student-veterans wanted to better understand their successes or failures in actions or policies by studying the doctrine or theory behind those actions or policies. Their incentive to learn was increased when the lesson material aligned with their past experiences. Respondents felt drawn to the curriculum when it had the potential to explain their past experiences.

Another incentive to learn was when student combat experiences applied a different perspective to students' appreciation of the curriculum. The contrast between the classroom and the combat zone offered different perspectives for these students on a variety of subjects. This contrast in turn challenged students to question the ways personal values and biases influenced their learning.

Surprisingly, only one respondent found an incentive simply from the perspective of lifelong learning and two found incentives in trying to explain or rationalize past mistakes in a combat zone. Adult learning theory includes the idea that adults are lifelong learners who frequently find incentives to learn (Brookfield, 1986). The few corresponding responses from this question were insufficient to support that tenet of adult learning theory.

The next question addressed whether emotional barriers existed for learning among student-veterans. Out of the 68 respondents to the question, "How have your combat experiences hindered your incentive or motivation to learn the content of the curriculum in the classroom?," the majority indicated there was no barrier from their combat experiences. Only the theme of emotional dissonance emerged. Table 4 (on page 19) provides the results from this question.

Students indicated that their incentives to learn were restricted by the dissonance between their combat experiences and their classroom experiences. The emotional bias associated with their combat experiences hindered or prevented their acceptance of the new material. The emotional charge of combat associated with past learning anchored their perspective to the past and challenged their acceptance of material that disagreed with their experiences. The incompatibility between past experiences and the curriculum hindered their incentive to learn. In these responses, student-veterans discounted the classroom material or found it difficult to reconcile

Table 4.
Hindrance to Motivation

Theme	Frequency	Example responses
Emotional dissonance	14	"Biased perspective on flaws of the strategies and processes." "I needed to break the 'paradigm' and look at my experience in a different way." "Experience can bias you. Students must guard against the idea of I've been there and done that so I don't need to learn about it." "Difficult to use theory to merge practical experiences." "I think sometimes the things taught are contradictory to experiences, and experiences are a stronger teacher." "I struggled in brigade and below exercises and lessons because they felt like old hat, and did not line up with my personal goals."
No hindrance	47	"No hindering in my learning. I was able to absorb and use what I learned."

Note: Themes, frequency of theme within 68 responses, and representative response statements for the question, "How have your combat experiences hindered your incentive or motivation to learn the content of the curriculum in the classroom?" Table by author.

the differences between doctrine and experience. As one student indicated, "Experiences are a stronger teacher." However, the majority of respondents did not believe their combat experiences hindered their incentive to learn.

Social Dimension

The third dimension of Illeris's (2009) learning theory incorporates the social interactions of learners to construct and reinforce ideas. The next survey question asked, "How have your combat experiences supported your social interactions while learning the content of the curriculum?" Of the 51 responses, two supporting themes and a theme of no effect emerged. Four respondents replied that there was a negative effect, but that result will be addressed in the hindrance version for this question. Table 5 (on page 20) provides the outcomes from this question.

Table 5.
Support to Social Interaction

Theme	Frequency	Example responses
Common culture	20	"There exists a sense of brotherhood between those with common experiences, so that helps." "Combat experiences have made it easier to relate to people of similar background or those who have gone through high stress situations." "Shared experiences with classmates made the social interactions easier." "Knowing of shared experiences enables interaction between peers." "Other students provide lessons or experiences from their combat events that help to reinforce learning."
Credibility	10	"Combat experiences are important for credibility and as a means to identify similarities between classmates." "It gave me legitimacy to speak up at certain moments." "It helped validate me to my fellow classmates."
No effect	10	"I see those as two independent variables, not dependent."

Note: Themes, frequency of theme within 51 responses, and representative response statements for the question, "How have your combat experiences supported your social interactions while learning the content of the curriculum?" Table by author.

The largest response indicated the presence of a common culture in the classroom among those with combat experiences. Regardless of the area of deployment or extent of combat operations, student-veterans felt more comfortable interacting with other veterans. The common culture made sharing experiences and opinions about military operations easier and more productive regardless of the topic. As one respondent noted, combat experiences established a "brotherhood" that supported social interactions during learning activities.

Similarly, combat experiences appeared to have supported a perception of credibility in some respondents. Beyond the perceived brotherhood of veterans, these individuals expected others to value their combat experience or their standing as knowledgeable students prior to contributing to classroom discussions. The percep-

tion of combat veterans appeared to be that those without combat experiences were not affirmed or included in some learning activities. One respondent referenced the work of Sebastian Junger on combat veterans in society and the concept of an "exclusionary affiliation" where those with combat experience bond with each other but also exclude those without similar experiences. Spurlin (2014) also described how some students with actual combat experience (compared to those deployed but not actually in combat) were exclusionary in their interactions with other students and did not give credibility to learners or instructors without similar experiences. Nearly a fifth of respondents did not believe their combat experiences supported their learning.

The final question asked, "How have your combat experiences hindered your social interactions while learning the content of the curriculum?" Of the 55 responses, the majority indicated that their combat experiences did not hinder their learning. Only seven responses indicated that combat experience limited their interactions in the classroom. Common to these responses were descriptions of withdrawal from social interactions or an inability to accept contrary positions when combat experiences reinforced a student's perception in a discussion. The results and representative responses to this question are in Table 6 (on page 22).

Assessment

It is important to relate classroom content to personal experiences to improve learning consistent with adult learning theory (Brookfield, 1986; Merriam & Bierema, 2013). In the cognitive dimension, respondents indicated that their combat experiences provided a context for the curriculum in the classroom. Combat experiences supported their cognitive strategies in learning, too. While the former is typically considered a component of adult learning theory, it is not commonly understood that prior combat experiences also help adult learners frame problems, mitigate stress, or improve study habits so they are better prepared to learn the curriculum content (Illeris, 2007; Spurlin, 2014). The most common barriers in the cognitive dimension were differences between experiences and curriculum content, which led to either dissonance that could not be overcome or to bias that made accepting curriculum content difficult.

In the emotive dimension, responses indicated combat experiences provided motivation to learn material by generating a link to the past, present, and future of the learner. These student-veterans found motivation to learn material that they perceived had value for future use based on their past combat experiences. In the present, combat experiences motivated students to value different perspectives on issues and curriculum content and to recognize the potential for bias in their own perceptions. Looking to the past, student-veterans found incentive to align their classroom experiences with past experiences both as revelation and as resolution for actions

Table 6.
Hindrance to Social Interaction

Theme	Frequency	Example responses
Division and avoidance	7	"There are times where veterans get emotionally wed to their ideas because they fought and bled for them, so any disagreement can lead to a visceral reaction." "I find it hard to talk to people that haven't had the same experiences (e.g., have been wounded)." "I am more anti-social than ever." "I have gone from extroverted to introverted because sharing combat experiences doesn't help social interactions."
No hindrance	41	

Note: Themes, frequency of theme within 55 responses, and representative response statements for the question, "How have your combat experiences hindered your social interactions while learning the content of the curriculum?" Table by author.

taken while in combat. The most common barrier to motivation was the bias of some learners who did not want to learn material that contradicted their combat experiences. This disagreement between what they experienced in combat and the content of the curriculum dissuaded them from learning the classroom material.

In the social dimension, student-veterans identified the bond of veterans and the credibility of the veteran when discussing military topics as the most significant ways combat experiences supported learning. Students shared a closer camaraderie with other veterans that made interactions in the classroom smoother. Similarly, combat experiences provided immediate credibility to students and faculty. However, students with combat experiences alienated those without as noted vis-à-vis distant social relationships or devaluation of nonveteran input to the classroom. This alienation was more apparent in the barriers to social interaction that manifested in divisions within learner groups over combat experience or the type of combat experience. Individually, student-veterans might withdraw from social interactions with any group due to the side effects of trauma experienced in combat.

There are several implications of this study for instructors of student-veterans. Instructors should be aware of how students' prior combat experiences might individually affect their learning in a classroom. Care should be taken to know the

students on a personal level to appreciate the degree that student experiences will affect their learning (Sitler, 2009). Presenting material that contradicts student experiences will require additional instructor effort to avoid student bias. Framing the material in the context of knowledge or skills required in the future or exploring how practical application does not always agree with theory might help students recontextualize the material. Otherwise, student-veterans can easily dismiss instruction dissonant from their experiences.

In addition to instructors getting to know their students, instructors could create opportunities for students to learn more about each other in a social setting. Because one barrier to student-veteran learning is a perceived lack of credibility in those lacking combat experiences, fostering personal interactions outside the classroom might encourage student-veterans to be more accepting of the opinions and experiences of their peers without combat experience. The camaraderie of the classroom should extend beyond those with combat experience.

This qualitative study supported Illeris's theory that learning occurs in multiple dimensions and that barriers to learning also exist in those three dimensions (Illeris 2007, 2010). The results of this study were consistent with adult learning theory concepts described by Sharan Merriam and Laura Bierema (2013), Stephen Brookfield (1986), and other adult education practitioners. The implications for the adult classroom are that the combat experiences of student-veterans will reinforce learning in the classroom but can also hinder student learning—typically by biasing student-veterans' value of the curriculum and the ideas of non-veterans in the classroom.

The findings and recommendations of this study are those of the author alone and do not necessarily reflect the position of the U.S. Department of Defense or the U.S. Army. The author is employed by the U.S. Army but conducted this study as an independent researcher for academic purposes without direct compensation to conduct this study. There is no potential conflict of interest.

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