

Creativity: The “Backbone” of Effective Wargaming

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COLEÇÃO MEIRA MATTOS

ISSN on-line 2316-4891 / ISSN print 2316-4833

<http://ebrevistas.eb.mil.br/index.php/RMM/index>



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The general staff officer [...] is a renovator and a creator. They must fight against conservatism, becoming permeable to new ideas so that they can escape crystallization, conformism, and routine.

Marshal Castello Branco (SANTOS, 2004, our translation).

The quote from Marshal Castello Branco has inspired generations of Brazilian Army leaders to act in the face of the unexpected. An old army saying goes, “No plan ever survives the first shot of combat.” It is an old saying because it is true. Such surprises during execution are known in US Army doctrine as exceptional information: threats or opportunities that had not been anticipated (UNITED STATES, 2022). Exceptional information is at the heart of this truism, demanding leaders to be able to take the initiative in the absence of orders. One might ask, how can a leader determine, in the heat of battle, what is the appropriate action to take? This idea is central to the mission command philosophy. Leaders on the frontlines must have the imagination to take the next step to meet the commander’s intent as if the commander would visualize it if present. This imagination requires creative work, almost as if the leader is role-playing the commander, i.e., acting a part.

A recent exchange between the US Army Command and General Staff College (CGSC) and Escola de Comando e Estado-Maior do Exército (ECEME) promoted discussions and practices on wargaming, and plans were made for the development of wargaming-focused curriculum. Wargaming is an effective method for testing plans to discover what might make them fail. Wargaming requires imagination, foresight, and prediction—in short, creativity. This creativity is a key skill required for effective wargaming. Therefore, how can we as leaders become more creative and, thus, better wargamers? We at CGSC believe we have answered this question.

In the summer of 2022, a mixed methods experiment was conducted at the CGSC Satellite Campus in Fort Belvoir, Virginia, and at the main campus in Fort Leavenworth, Kansas. A total of 254 students participated in the study. The test group took a two-hour experimental creativity lesson designed to stimulate the creativity centers of the brain through the science of narrative storytelling. The control group participated in a two-hour creativity lesson designed to discuss the concepts of creative thinking. In all instances, the test group outperformed the control group, showing a greater improvement in creativity. To apply a metaphor, the test group demonstrated a 14-point increase in effective intelligence quotient (IQ) at solving complex, open-ended problems under a time constraint. For example, in a group of 14 students, the researchers observed an increase of nearly 20% in creativity (Table 1). One may ask, how can this creativity be useful during wargaming? Considering that creativity is crucial for effective wargaming, we invented a way to enhance creativity.

Table 1 – Initial finding of the isolated test group with 14 participants

14 Participant Isolated Test Group initial finding

Admin #	Pre-Test				Post-Test				% Change
	Novelty	Suitability	Feasibility	All Mean	Novelty	Suitability	Feasibility	All Mean	
2077	3.25	3.25	3.25	3.25	3.50	3.75	3.75	3.67	12.82%
3197	1.25	1.25	1.00	1.17	2.50	2.50	2.50	2.50	114.29%
3314	5.00	4.75	4.50	4.75	6.00	5.00	5.75	5.58	17.54%
3711	3.75	4.25	4.25	4.08	4.75	4.50	4.75	4.67	14.29%
3903	3.50	4.25	4.25	4.00	4.75	4.25	4.75	4.58	14.58%
4076	3.75	4.25	4.00	4.00	4.50	4.50	4.75	4.58	14.58%
4161	3.75	3.75	4.00	3.83	3.75	4.00	4.25	4.00	4.35%
4481	3.50	3.75	3.75	3.67	4.00	3.75	4.50	4.08	11.36%
4872	4.50	4.25	4.75	4.50	5.00	4.75	5.00	4.92	9.26%
6887	5.00	5.00	4.75	4.92	5.75	4.75	5.75	5.42	10.17%
7700	3.75	4.00	4.00	3.92	4.75	4.25	4.75	4.58	17.02%
8445	3.75	3.50	3.25	3.50	5.00	3.25	2.75	3.67	4.76%
8960	3.25	4.00	4.00	3.75	4.75	4.50	4.50	4.58	22.22%
9001	5.00	4.50	4.25	4.58	5.50	4.75	4.25	4.83	5.45%
								Avg Change:	19.48%

**So what: Results indicate an improvement in creative thinking when participating in Narrative Practice
Average improvement: 19.48%**

Source: table prepared by the authors, 2023

Some leaders might ask, how can I get in on this? What is next for the study of creativity and how can we get tools to improve creativity for ourselves and the soldiers we lead? We are glad you asked.

First, this experimental approach was applied to improve creativity and resilience among elementary school students in Ohio during the Summer of 2022. Further research will be conducted to establish the level of effectiveness of this approach to creativity in the future in other communities. Therefore, more information will be shared resulting from this ongoing study. Second, the findings from this study are being proliferated throughout the length and breadth of the Army University and beyond. For example, for those who want more information

regarding the findings of this study, two videos have been shared on the CGSC YouTube channel (McConnell, 2023b; McConnell, 2023a -- links provided in references).

The research report for the Creativity study was published in March (McConnell et al., 2023). A summary article is about to appear explaining in detail this study and should be available in December 2023 (McConnell & Benveniste, 2023). Finally, those who want to start improving their creativity immediately can try the *Creativity Field Guide*, which offers 30 simple drills designed to enhance creativity (FLETCHER, 2021). The *Creativity Field Guide* drills could easily be incorporated into unit training or classroom instruction in Professional Military Education (PME) without taking up too much time (most drills require 15 to 30 minutes). Enhanced creativity could be at your fingertips, all you have to do is give it a try. Some leaders might ask why is creativity so important for wargaming and what effect could it have during the execution of plans?

Imagine if you were leading soldiers as a Ukrainian military leader right now. Just look at the Ukrainian/Russian conflict and see the combat multiplier that creativity has proven itself to be. In the case of the Ukrainian Army, a smaller force is punching above its weight thanks to creativity. A smaller creative force seems to replicate more combat power and capabilities than a larger, less creative force. In the future, creativity will no longer be an option, but a requirement.

Fortunately for the Brazilian Army, their leaders are some of society's most creative thinkers. At ECEME, an institution that prepares future leaders of the Brazilian Army, field grade officers are encouraged to solve complex and unprecedented military problems. Think about it: how many times have leaders had to adapt to creatively fix problems that they had not anticipated for when they got up that morning? For example, did the Brazilian military leaders who led the army in facilitating security at the 2016 Olympics or in the humanitarian operations at the border with Venezuela since 2018 foresee it before they had to do it? Probably not, but they did it anyway. Brazilian Army leaders are already creative. This research can only make them more creative. Considering what we are observing in Ukraine, if you could make yourself and your soldiers more creative, why would you not? If you could provide your senior leaders with more creative, innovative, novel, and surprising solutions that could help them anticipate what is coming next and seize the initiative from the enemy, why would you not do it? If you were more creative, how might that improve wargaming? The findings of the creativity study will result in tools that Brazilian Army leaders can take off the shelf and use in the field to improve not only operations, but also the thinking that underpins the planning of those operations. We invite you to give it a try.

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