



A U.S. Army Paratrooper assigned to the 173rd Airborne Brigade gives directions to his troops while participating in Exercise Immediate Response at Pocek Training Area, Slovenia, May 15, 2019. (U.S. Army photo by Sgt. Henry Villarama)

NCOs' Contribution in Solving Complex Problems

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At all levels of war, leaders face problems and must develop actions to overcome them. The challenges vary from subversive political legal strategies and coercive economic practices to tactical decisions. Current issues are complex and aim to disrupt any domain that may provide an enemy a position of relative advantage over U.S. forces. For this

reason, identifying problems and developing actions to address these issues are imperatives for the U.S. Army. Army doctrine has three planning methods encompassing the conceptual and detailed planning required to solve a wide range of problems: Troop-Leading Procedures (TLP), Military Decision-Making Process (MDMP) and the Army Design Methodology

(ADM). MDMP and troop-leading procedures are used for detailed planning at tactical levels, while the ADM provides Army leaders with an excellent tool for conceptual planning at all levels of war (Fox, 2018, p.28). U.S. Army leaders need the ability to solve complex problems within an operational environment (OE) to prevail in Large Scale Combat Operations (LSCO). NCOs utilize their training and grounding through numerous cycles of planning experiences to augment the commander's approach to understanding complex problems. This article will present NCOs as key enablers in solving the Army's complex problems.

Army Design Methodology

ADM requires examining a problem in depth. Properly identifying problems allows leaders to better assess the OE and prepare for anticipated changes. To obtain a detailed analysis of the problem, ADM uses the following key concepts:

- Operational art – a cognitive approach supported by knowledge, experience, creativity and judgment to develop strategies.
- Critical and creative thinking - Critical thinking is a purposeful and reflective thought to interpret data and information. Creative thinking is about examining problems from the perspective of developing innovative solutions.
- Collaboration and dialogue systems thinking - analysis of the relationships among variables by generating inputs and managing outputs within the OE.
- Framing - build conceptual models of reality.
- Visual modeling - visual forms by graphics, sketches, images and symbols that enhance critical and creative thinking.
- Narrative construction - a story that provides meaning to the situation (DA, 2015a).

ADM's framing helps commanders and staff solve complex problems using these key concepts.

Understanding the OE is critical for military operations. The conditions, circumstances and influences in an area that may affect the employment of capabilities, and support the commander's decision, is known as the OE (DA, 2015a). According to Dagher (2018), OEs "are interactively complex that any effort to affect change on one part of the system will have an effect on other parts of the system" (p.4). The systematic analysis of each environmental aspect determines

the connection among various operational variables to obtain a holistic view of the OE (DA, 2014). While framing the OE, leaders analyze problems that may impede friendly forces from achieving the desired end state. The problems that may prevent the shift between the current and the end state are critical. Usually, questions help commanders identify and understand the problem, such as, what is the difference between the current state and the desired end state? After reviewing and updating the environmental frame and using key concepts to develop helping questions leaders can map out problems or issues by comparing current OE conditions with the OE representing the desired end state. Using tools and techniques such as brainstorming, mind mapping and questioning assumptions, leaders frame problems demonstrating their relationship and provide a visual model and narrative description.

Once leaders identify the problem or set of problems, they build a description of the commander's visualization and actions of what needs to be done to overcome the problems and achieve the desired end state (DA, 2015a). This process is called the operational approach. According to DA (2015a), the operational approach is "a description of the broad actions the force must take to transform current conditions into those desired at the end state" (p. 5-1). It is essential to remember that to reflect a leader's understanding of the OE and the problem, the operational approach demands creative thinking, dialogue and collaboration, elements of the operational art, systems thinking, visual models and narratives to generate courses of action for U.S. forces.



Soldiers assigned to the 497th Multi-Role Bridge Company (MRBC), 92nd Engineer Battalion, and 3rd Battalion, 69th Armor Regiment, 1st Armored Brigade Combat Team, 3rd Infantry Division, maneuver an M1A2 SEPv3 Abrams tank across an Improved Ribbon Bridge (IRB) during a wet gap crossing exercise at Fort Stewart, Georgia, Sept. 20, 2023. (U.S. Army Photo by Spc. Duke Edwards)



Paratroopers from the 173rd Airborne Brigade receive a briefing to ensure everyone understands their duties in a following airborne operation. (U.S. Army Photo by Lt. Col. John Hall)

learning and gaining experience that will help them thrive during hardship. NCOs must be authentic throughout the development process to show subordinates they are preparing them to replace them in the future. With these actions and behaviors, NCOs will support command by fostering a positive learning environment and encouraging subordinate leaders to think independently and take initiative. NCOs must promote activities in training where subordinate leaders can develop self-awareness and self-regulation through critiques and feedback. As a result, the Army gains adaptable and humble Soldier leaders, ready for continuous change.

In other words, leaders must use all key concepts for developing approaches to face the problem.

Friendly force capabilities, changes in the OE, the enemy composition and other external influences evolve and may present as a deterrent in developing or applying the operational approach. During operations, complex problems may change. This requires leaders to reassess OE variables critical to shaping operations (DA, 2015a). It is essential to assess the OE continually as the problem can morph.

ADM analysis requires more than expertise in specific fields; it requires ground experience, knowledge of one's Soldiers and in-depth thinking about a problem. In this context, NCOs have the skills and background to contribute to mission success.

NCOs' Contribution

NCOs assist commanders in constantly challenging the logic of the process, providing input and scrutinizing the planning team approach. Soldiers, specifically NCOs, can adapt to the OE and the dynamic of complex problems. This develops experience in leaders, shared understanding, effective communication and team member development.

Leadership Experience

Leader development results from preparing subordinates and challenging them to take responsibility and authority. The preparation of leaders to succeed at the next level of responsibility is crucial when facing complex problems. NCOs take prudent risks during training, conduct after-action reviews to reinforce standards and ensure Soldiers are

Shared Understanding

The importance of shared understanding to solve complex problems is expressed in DA (2019), "a critical challenge for commanders, staff and unified action partners is creating shared understanding of an operational environment, and operation's purpose, problems, and approaches to solving problems" (p. 1-8).

In complex situations, NCOs ensure their team understands the commander's intent, priorities of effort and desired end state. Developing shared understanding enables subordinate leaders to take effective action on their own while keeping true to the commander's intent guidance. NCOs must express their thoughts clearly, ensure subordinates understand the message and reinforce the importance of the unit priorities (DA, 2015b). Furthermore, to be effective in shared understanding, NCOs must recognize and avoid miscommunication to ensure subordinates and superiors track the same knowledge and information (DA, 2015b). It is only possible to develop a shared understanding with effective communication.

Communication

Mistakes in communication while facing complex problems may result in operational failures. NCOs must not act rashly with new information or create barriers to communication so subordinate leaders can make well-informed decisions. Leaders must clearly express their ideas, listen to others actively and consider cultural factors to practice effective communication (DA, 2015b).

Effective communication requires NCOs to pay

attention to nonverbal cues, ask for clarification when necessary and paraphrase the speaker's main points before generating an answer (DA, 2015b). Successful NCOs invest time and energy to engage with Soldiers and action partners to understand their issues related to the problem (DA, 2019). In addition, being available for new information and feedback creates a positive climate, essential in high-stress and complex situations.

In developing teams, NCOs encourage people to work together, promote teamwork and achievements to build trust and provide honest feedback on team performance (DA, 2015b). Additionally, NCOs must rapidly and effectively integrate new members, use team activity wisely to build cohesion and trust, maximize the talents of team members and create a favorable environment

that encourages team members to take on extra responsibilities that benefit the team (DA, 2015b).

Conclusion

Developing leaders with shared understanding, effective communication and team cohesion builds NCOs who provide morale and confidence, share their understanding, deal with operational effects on leaders and subordinates, and build interoperability and mutual trust among team members. Leaders create and exploit positions of relative advantage, impose multiple dilemmas on the enemy and anticipate, plan and execute transitions. Through experience, skills and input, NCOs contribute to ADM in support of expanding the boundaries that seek a solution for complex problems. ■

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