The Efficient NCO: Developing an AI-Ready Leader

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ABSTRACT

The rapid advancement of the Artificial Intelligence (AI) field underscores the need to build an AI-ready workforce. Decisions on when to use AI, where to integrate AI, and how to choose the right AI, all start with choices made by people. This work-in-progress paper highlights the importance of adapting education to develop AI-ready leaders through the lens of the Basic Leader Course (BLC). First, we discuss why training students to think efficiently sets the best foundation to use AI effectively. Then, we examine the BLC curriculum to identify areas for improvement. Finally, we recommend ways in which BLC can be updated to instill an efficient mindset. We conducted a preliminary analysis of the 169-hour BLC curriculum and categorized the hours as based on our assessment of how effectively the lessons utilized the BLC environment and the expertise of the student cohort. Our findings indicated that 62 course hours demonstrated effective utilization, 79 hours demonstrated acceptable utilization, and 28 hours demonstrated poor utilization. We recommend adjusting the BLC curriculum to emphasize lessons that better leverage the students' shared expertise and the unique BLC environment. In place of removed lessons, we propose new exercises in efficiency. This paper will continue to refine these recommendations as research progresses.

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INTRODUCTION

AI represents a potential paradigm shift in decision making and task completion. At its core, AI is about adding intelligence to automation. The ability to rapidly synthesize and summarize large amounts of information enables more efficient decision making. The ability to generate relevant content streamlines tasks that previously required human input and creativity.

Utilizing AI effectively depends on the people involved. Individuals need to be able to identify bottlenecks and determine the most appropriate role for AI, whether as an assistant, tool, peer, or manager (Malone, 2018). They must be able to evaluate the strengths and weaknesses of different models and decide how much human participation and oversight is needed. They need to understand the issues surrounding hallucination, inconsistency, and bias. Most importantly, they need to be able to determine if AI is the right solution to the problem in the first place.

How to Identify an AI-Ready Leader?

Consider two soldiers: the first completes a task in a simple manner while maintaining or improving quality, while the second complicates the same task with no improvement or marginal improvements in quality. Which soldier is better suited to utilize AI?

"The Army will continue to operate in a resource-constrained environment. The Army must use time and assets as effectively and efficiently as possible to have an advantage over adversaries." (TRADOC Pamphlet 525-8-2, p. 12)

The ability to decrease complexity by taking a systems approach to efficiency is a fundamental prerequisite for successfully integrating new technologies. Efficiency is the enabler of effective AI use. If we consider efficiency to be a critical skill, how can we improve this skill across the force? We examine this idea through an analysis of the Basic Leader Course (BLC).

Basic Leader Course

Professional Military Education (PME) includes BLC, Advanced Leader Course (ALC), Senior Leader Course (SLC), Master Leader Course (MLC), and more. Traditionally, enrollment required completion of the approximately 40-hour online Distributed Leader Course (DLC), also known as Structured Self Development (SSD). DLC previews content in the follow-on course.

BLC is designed with the intent of setting soldiers up to be successful noncommissioned officers (NCOs). A typical BLC cohort comprises approximately 80 to 100 soldiers spread across four classrooms. Each classroom is usually assigned two primary instructors that are responsible for the 20 to 25 soldiers in their class. Some cohorts can be significantly larger in size.

Effective May 2024, there are two PME changes relevant to our discussion:

- *Rank adjustment for PME*. Requirements for promotion have shifted up one level. No PME is required for promotion to Sergeant, BLC is now required for promotion to Staff Sergeant, ALC for Sergeant First Class, and SLC for Master Sergeant. Previously, BLC was required for Sergeant, ALC for Staff Sergeant, SLC for Sergeant First Class, and MLC for Master Sergeant. (citation)

- *Elimination of DLC*. Soldiers who have not started the course will not need to start, and soldiers who have started the course do not need to finish. (citation)

Effective fiscal year 2026, the following changes are expected:

- *Increased length of BLC*. The length of BLC is expected to increase to accommodate land navigation and other field training. Details including implementation date, number of additional days, and modified course content are still being finalized. (Beynon, 2023)

A breakdown of the current BLC curriculum can be seen in Table 1.

BACKGROUND

To understand how the Army can develop an efficient mindset in its leaders, it is important to examine several foundational theories that impact organizational efficiency and effectiveness. These include Systems Theory, which explores interactions within a system, Human Capital Theory, which emphasizes the value of investing in people, and the Model of Organizational Culture, which explains how different layers within an organization affect behavior.

Systems Theory

Systems theory examines interactions between different components of a system to better understand how these interactions might cause new properties to emerge (Bertalanffy, 1972). The terms system and component are not set in stone but relative to what they reference. A system in one situation might be considered a component in another. A company is a component of a battalion which in turn is a component of a brigade.

Systems can be formed from any combination of objects, places, people, culture, actions, and ideas. Properties that emerge from interactions between components are similar to the concept of indirect effects (Davis, 2001). It is important to correctly identify indirect effects so that improving efficiency in one area does not inadvertently reduce efficiency in another.

Human Capital Theory

Human Capital Theory highlights the importance of investing in people to improve organizations (Becker, 1975). Improving the skills and capabilities of people can improve efficiency in areas such as administration, communication, and workload management.

Administration: Investing in administrative training can improve efficiency by streamlining processes. This includes learning new software, project management techniques, or decision-making frameworks that promote standardization in administrative tasks.

Communication: Effective communication is essential for efficiency. This includes training on how to deliver information in a clear and concise manner to minimize misunderstandings and reduce the need for unnecessary clarifications.

Workload Management: Leaders equipped with skills in managing workloads efficiently can optimize team productivity while maximizing work-life balance. This includes training on delegation, prioritization, and the effective use of talent and expertise.

Model of Organizational Culture

The Model of Organizational Culture explores how organizational culture affects behavior. The model identifies three levels of culture: artifacts, espoused values, and basic underlying assumptions. (Schein, 2016)

Artifacts: Artifacts include physical aspects such as facility layout, classroom technology, and the observable behaviors of students and instructors. These aspects often serve as visible indicators of the other two layers. If modern technology is present in a classroom but consistently fails to function properly, modern but nonoperational technology can be considered an artifact. This in turn can affect views when evaluating the adoption of another new technology.

Espoused Values: These values are the declared goals and standards. Mission statements and directives, such as the NCO Creed and the latest promotion guidance would fall under this level. Discrepancies between stated values and what happens in practice can create confusion among the parties involved about the appropriate actions needed to achieve intended outcomes.

Basic Underlying Assumptions: These are the deeply ingrained beliefs that are considered as the default viewpoint. Ideas about what the core soldering skills should be, the structure of organized physical training, perceptions of active duty and reserve personnel, and direct commissions in basic branches could be considered underlying assumptions. These assumptions are the most difficult to change as they involve a fundamental transformation of the organization’s culture.

METHOD

We used the Individual Student Assessment Plan (ISAP) published by the NCO Leadership Center of Excellence (NCOLCoE), which breaks down the BLC curriculum into 30 lessons spread across 4 modules. We rated these lessons on a scale of 1 to 5 that assessed their effectiveness in two areas: (1) how well they leveraged the BLC environment, and (2) how well they utilized cohort expertise. The BLC environment rating evaluates the extent to which lessons utilize the unique physical environment, course structure, sense of community, equipment, and personnel available. The cohort expertise rating measures how effectively lessons encourage the exchange of relevant knowledge and experience among students. The list of lessons and utilization ratings can be seen in table 1.

Table 1: *BLC Lesson Ratings (How well the lesson utilizes the BLC environment and the cohort's expertise)*

Lesson	Hour	Utilize BLC Environment	Utilize Cohort Expertise
BLC Overview / Blackboard Review	3	4	1
Group Dynamics	3	5	5
Sexual Harassment / Assault Response & Prevention (SHARP)	3	5	3
Physical Training	19	4	1
Drill and Ceremonies	6	5	2
Equal Opportunity / Prejudice and Discrimination (EO)	2	5	3
Cultural Competencies	4	5	5
Written Communication	13	3	2
The Army's Leadership Requirements Model	4	5	3
Critical Thinking and Problem Solving	4	5	5
Effective Listening	3	5	3
Public Speaking	12	5	3
Army Combat Fitness Test (ACFT) Grader Certification	8	3	1
Mission Orders and Troop Leading Procedures	5	4	2
Training Management / Conduct Individual Training (CIT)	18	4	3
Army Values, Ethics, and Integration of Soldier 2020	5	5	3
Legal Responsibilities and Limits of NCO Authority	4	5	3
Followership and Servant Leadership Fundamentals	6	5	3
Team Building and Conflict Management	7	5	5
Counseling	7	4	2
Financial Readiness	2	2	1
Talent Management	1	3	2
Solder for Life / Transition Assistance Program	4	3	1
Soldier Readiness	6	3	1
Command Supply Discipline Program	5	3	1
Holistic Health and Fitness	2	1	1
Resiliency	6	4	2
Nutritional Readiness	3	1	1
Army Body Composition	2	1	1
Contemporary Issues	2	3	5
	169		

Tables 2, 3, and 4 classify lessons into three categories according to the sum of their two utilization ratings. Lessons with a combined rating of 8, 9, or 10 are categorized as effective utilization. Lessons with a combined rating of 5, 6, or 7 are categorized as acceptable utilization. Lessons with a combined rating of 2, 3, or 4 are categorized as poor utilization.

Table 2: *Lessons categorized as effective utilization*

Lesson	Hour	Combined Rating
Team Building and Conflict Management	7	10
Critical Thinking and Problem Solving	4	10
Cultural Competencies	4	10
Group Dynamics	3	10
Training Management / Conduct Individual Training (CIT)	18	8
Public Speaking	12	8
The Army's Leadership Requirements Model	4	8
Effective Listening	3	8
Sexual Harassment / Assault Response & Prevention (SHARP)	3	8
Contemporary Issues	2	8
Equal Opportunity / Prejudice and Discrimination (EO)	2	8

Table 3: *Lessons categorized as acceptable utilization*

Lesson	Hour	Combined Rating
Drill and Ceremonies	6	7
Followership and Servant Leadership Fundamentals	6	7
Army Values, Ethics, and Integration of Soldier 2020	5	7
Legal Responsibilities and Limits of NCO Authority	4	7
Written Communication	13	6
Resiliency	6	6
Mission Orders and Troop Leading Procedures	5	6
Solder for Life / Transition Assistance Program	4	6
Talent Management	1	6
Physical Training	19	5
Counseling	7	5
BLC Overview / Blackboard Review	3	5

Table 4: *Lessons categorized as poor utilization*

Lesson	Hour	Combined Rating
ACFT Grader Certification	8	4
Soldier Readiness	6	4
Command Supply Discipline Program	5	4
Financial Readiness	2	4
Nutritional Readiness	3	2
Army Body Composition	2	2
Holistic Health and Fitness	2	2

DISCUSSION

Our analysis revealed that lessons involving discussions and the sharing of individual experiences received higher ratings. This trend suggests that the BLC environment provides a comfortable space for students to discuss sensitive topics that they may not be comfortable sharing within their home units or with their chain of command. The diversity of experiences shared in the BLC setting, which may be broader than what might be encountered at home units, also potentially contributes to these higher ratings. Table 2 highlights the lessons that are rated as high overall utilization. Lessons on EO and SHARP are noted for effective utilization, as the unfamiliar setting of BLC might encourage students to share potentially sensitive experiences that may involve individuals in their home units. In a similar fashion, lessons on group dynamics and conflict management often involve sharing experiences related to interactions with individuals at the students' home units.

The training management/CIT lesson likely received a higher overall rating because it requires students to demonstrate proficiency in delivering instruction, and the students are partially evaluated based on the performance of those who received the block of instruction. Topics of instruction range from identifying terrain features on a map to challenging a person entering a secured area. This lesson benefits from the physical presence and mental engagement of fellow students, as well as instructor feedback. Students are also able to observe and learn from the instruction styles of others. In a similar fashion, the public speaking lesson involves presenting to fellow students and responding to questions in real time. Students can learn from the presentation techniques of others. The lesson on contemporary issues was also rated highly due to the potential for engaging discussions on current and future topics such as geopolitics, emerging technologies, and changes in doctrine.

An important note is the distinction between the lesson name and what the lesson entails in practice. While some lessons may appear to involve substantive discussions and performance assessments, they may consist of reviewing online resources and completing forms. Lessons such as soldier readiness, command supply discipline program, financial readiness, nutritional readiness, body composition, and holistic health and fitness fall into this category. These lessons are categorized as poor utilization and can be seen in Table 4. The same applies to the ACFT grader certification. Home units might require that students repeat the certification process, often with conflicting interpretations of what constitutes proper technique according to the guidance.

Lessons with acceptable overall ratings often had varied or consistently average utilization ratings. Both drill and ceremonies and physical training do not make the best use of the expertise of fellow students. However, they effectively leverage the BLC environment by providing a consistent opportunity to students to exercise and march in formation. Lessons with acceptable overall ratings can be seen in Table 3.

RECOMMENDATIONS

Recommendation 1: Eliminate or improve the lessons that are poorly utilized

We recommend removing or improving the following lessons totaling 28 hours, representing approximately 16 percent of the existing curriculum: ACFT grader certification, soldier readiness, command supply discipline program, financial readiness, nutritional readiness, army body composition, and holistic health and fitness. In their current state, these lessons address topics that could be effectively covered in a detailed PDF or slideshow that they can follow along with at their home units.

Recommendation 2: Add exercises in efficiency

We recommend incorporating lessons that encourage students to critically analyze and discuss strategies for improving their organizations. This could be structured as a two-part process. In the first part, students would propose improvements to BLC itself, helping to refine future iterations. The second part would involve students devising strategies to improve efficiency at their home units. These new lessons would offer several benefits. Students would engage with real-world issues and gain increased exposure to the complexity that entails. It would also provide a platform to collaborate to develop solutions. Students would also gain experience presenting and defending their proposals. Both the students and the Army stand to gain as this mindset of improving organizational efficiency spreads throughout the force.

FUTURE WORK

We plan to conduct surveys to assess how students rate their BLC lessons for the two types of utilization at distinct stages of their NCO career: (1) Students graduating from BLC, (2) students starting ALC, and (3) students starting SLC.

The objective of these surveys is to capture the real-world perceptions of students at various stages of their NCO journey. This approach is designed to identify discrepancies and potential issues that may emerge as students' experiences shape their views on the effectiveness of their prior training. The timeframe, from the end of BLC through the start of SLC, is meant to capture a representative sample of students that will complete or have completed the current iteration of BLC implemented in 2018.

REFERENCES

Becker, G. S. (1975). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. *National Bureau of Economic Research*.

Bedeian, A. G. (1986). Contemporary Challenges in the Study of Organizations. *Journal of Management*, 12(2), pp. 185-201.

Bertalanffy, L. V. (1972). The History and Status of General Systems Theory. *Academy of Management Journal*, 15(4), pp. 407-443.

Beynon, S. (2023, October 9). Army Basic Leader Course Will Soon Be Longer and Have Graded Land Navigation. *Military.com*. https://www.military.com/daily-news/2023/10/09/army-basic-leader-course-will-soon-be-longer-and-have-graded-land-navigation.html

Davis, P. K. (2001). Effects-Based Operations: A Grand Challenge for the Analytical Community. *RAND*.

De Witte, K., and López-Torres, L. (2017). Efficiency in Education: A Review of Literature and a Way Forward. *Journal of the Operational Research Society*. 68(4), pp. 339-363.

Ferguson, D. M. (2024). A Catalyst for Writing. *Military Review Online Exclusive*.

Malone, T. W. (2018). How Human-Computer 'Superminds' Are Redefining the Future of Work. *MIT Sloan Management Review*, 59(4).

NCO Leadership Center of Excellence. (2020, October). *Appendix B: Assessment Administrative Guidance and Individual Student Assessment Plan (ISAP)*. https://home.army.mil/liberty/application/files/1916/0458/7851/BLC_ISAP_2.0.pdf

NCO Leadership Center of Excellence. (2019, October). *Distributed Leader Course (DLC) Professional Military Education Reference Curriculum - Volume II*. https://www.ncoworldwide.army.mil/portals/76/catalogs/20oct2019volumeii.pdf

Schein, E. H. (2016). Organizational Culture and Leadership (5th Edition). *Wiley*.

Training and Doctrine Command. (2024). The Army Learning Concept for 2030-2040 (TRADOC Pamphlet 525-8-2).