

Going from Good to Great:

Avoiding Subtle Pitfalls in Unit Training Management

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Training is one of the most important things we do in our Army. Rightfully so, units spend a lot of time and effort planning and executing training, and there's a lot of great training happening every day around the Army. But the reality is that unit training management is complicated, and there's a lot that can go wrong with it, despite our best efforts and intentions.

Army training doctrine is outstanding. But like all doctrine, experience is important in deciphering and fully appreciating all of its insights. Some of the pitfalls in unit training management are not described in detail within Army training doctrine and unfortunately have become commonplace as the status quo for how many units approach training. Rather than attempt to describe all the common pitfalls with unit training management — an effort that could easily fill a book — the following is an attempt to focus solely on some of the less obvious but more egregious issues, learned mostly through past failures of friction, frustration, and unmet training objectives.

There are four subtle pitfalls in unit training management that, while not thoroughly detailed in Army training doctrine, often have major negative consequences to achieving high standards in training readiness:

- Putting the Cart Before the Horse — Training Before Educating
- Unlearning Bad Habits — The Hidden Obstacle in the 8-Step Training Model
- Putting Theory into Practice — Establishing Standard Operating Procedures
- Overvaluing the Wrong Thing — Confusing Fancy Training with Good Training



Paratroopers from 2nd Battalion, 504th Parachute Infantry Regiment conduct a live-fire exercise as part of Joint Readiness Training Center Rotation 23-02 at Fort Polk, LA, on 14 November 2022. (Photo by SGT Jacob Moir)

Pitfall #1: Putting the Cart Before the Horse — Training Before Educating

“Knowledge without understanding is useless.”

— Thucydides

Go to any large gym during peak operating hours, and you’re bound to see someone doing wildly ineffective physical training — bad mechanics, unsafe form, lifting weights that are too heavy or light, gimmicky shortcuts, or following a poorly designed program. If the objective of physical training is to optimize fitness, each of these deficiencies will lead to failure in suboptimal results. The solution, then, is NOT merely executing more bad training with increased effort, since this would not fix the fundamental problem of ineffective training. Such shortcomings are not caused by a lack of effort but rather a lack of understanding. Education — the development of foundational knowledge — must precede training.

The bedrock of all Army training is doctrine. Doctrine is comprised of principles, terms, symbols, tactics, techniques, and procedures (TTPs) that are firmly rooted in time-tested theories and observations.¹ These foundational ideas form the intellectual framework needed to master the practical application of skills and are essential to truly understand the “why” behind unit training objectives. Too often, units neglect the deliberate and focused education necessary to comprehend the doctrinal concepts that underpin training objectives. This results in Soldiers who don’t fully understand what they are being trained to do and are thus incapable of adapting their narrowly acquired skills to changing METT-TC (mission, enemy, terrain & weather, troops & support available, time available, civil considerations) conditions in dynamic and complex environments. Education empowers Soldiers with disciplined flexibility and adaptability that remain firmly rooted in sound doctrinal thinking.

Although Field Manual (FM) 7-0, *Training*, mentions the importance of leader development to training, it fails to clearly articulate the importance of education to achieving high standards in training or the consequences of under-educating a training audience.² In both FM 7-0 and FM 6-22, “leader development” is a broad concept that involves “the career-long synthesis of the training, education, and experiences acquired through opportunities in the institutional, operational, and self-development domains.”³ Thus, while Army training doctrine makes a clear distinction between education and training, it doesn’t emphasize the crucial relationship between the two and seems to relegate education specifically to the institutional domain almost exclusively. The result of this is a chronic deficit in unit-level educational efforts that are critical to achieving high standards in training.

Compounding this risk is the fact that most unit training events — rightfully so — deliberately narrow the METT-TC variables in order to control the environment for training, evaluation, and safety purposes. Although necessary, this causes the training audience to build proficiency under narrow METT-TC conditions, which are subject to change in more complex and dynamic environments. Without acquiring broad-based knowledge and understanding through education prior to training, units frequently develop Soldiers who are either too rigid in their application of skills or reckless in jettisoning all doctrinal principles the moment unfamiliar METT-TC conditions arise.

The solution to this pitfall is simple but not easy: Units must invest sufficient effort in educating leaders on the doctrinal knowledge required to truly understand the skills and TTPs performed in training. One way to do this is to focus leader professional development (LPD) events, train-the-trainer activities, and “crawl”-phase instruction on analyzing the tasks to be trained through the lens of doctrinal concepts and principles. In other words, before training on any task, attempt to answer the question “why” in as much detail as possible from a doctrinal perspective. Japanese inventor and industrialist Sakichi Toyoda once proposed a problem-solving method that involved asking “five whys” to develop a deep understanding of problems.⁴ By applying this technique in educating Soldiers on the doctrinal concepts that support unit training objectives, Soldiers can gain true understanding that enables disciplined adaptability.

As an example, when examining Battle Drill 2 (platoon assault) and the doctrinal rationale for identifying a vulnerable flank to assault,⁵ applying the “five whys” learning technique may educate Soldiers on the following doctrinal underpinnings:

- 1) A vulnerable flank presents an opportunity to **maneuver** or move in combination with fire to achieve a position of relative advantage.⁶
- 2) The specific form of maneuver that achieves relative advantage on a vulnerable flank is an **envelopment**, which seeks to avoid an enemy’s principle defenses (fires and obstacles) where they are strongest.⁷

- 3) This achieves a principle of direct fire planning and control in **minimizing exposure** through increasing survivability by exposing Soldiers to the minimum extent necessary to engage the enemy effectively.⁸
- 4) This also achieves **enfilade fire** in aligning the long axis of friendly direct fire beaten zones with the long axis of the enemy formation, which is the most preferable pattern of fire.⁹
- 5) Envelopment also achieves a characteristic of offense through **surprise** by attacking at a time, place, or manner for which enemy forces did not prepare or expect.¹⁰

Why does this matter? Understanding this logic empowers Soldiers to make appropriate decisions based on METT-TC and possibly NOT attempt an envelopment during the assault if the assumed conditions that justify the recommended TTP do not exist; for instance, if —

- There are no assailable flanks based on the enemy's disposition;
- Enfilading fires cannot be achieved based on the terrain or enemy array;
- There is insufficient concealment to move to a flanking position undetected to achieve surprise; or
- The enemy's frontal fires and obstacles are sufficiently weak enough to mitigate the risk of an audacious frontal attack.

In short, sufficiently educating Soldiers prior to training teaches them **how to think**, not just what to think — something our Army espouses as essential to fight and win in a complex world.

Pitfall #2: Unlearning Bad Habits — The Hidden Obstacle in the 8-Step Training Model

"Beware of false knowledge; it is more dangerous than ignorance."

— George Bernard Shaw

There's an ugly truth that many of us would prefer not to acknowledge: Not all Soldiers have been well trained in the past. In fact, some of them have been miseducated or poorly trained in bad TTPs, terminology, symbols, theories, and principles that are antithetical to sound Army doctrine. In many ways, this is a significant setback to unit training plans before the training even begins. Many leaders make one of the following dubious assumptions about their training audience that could jeopardize the effectiveness of their training from the very beginning:

- 1) They are starting with a tabula rasa (blank slate) of knowledge; or
- 2) Preexisting knowledge and skills are congruous with the future training standards to be achieved; or
- 3) It is easy to convince people that their preexisting knowledge and skills are either incomplete, misguided, or entirely wrong; or
- 4) Preexisting knowledge and skills are easily unlearned or untrained.

If any of these assumptions prove invalid (as they often do), then leaders immediately find themselves engaged in not only a training management effort but a **change management** effort, which is significantly more challenging. Training "blank slate" Soldiers is simple: Teach them what they don't know. But "untraining" — the process of replacing poor knowledge or skills with new knowledge or skills for the same tasks — is more complicated. In "untraining," leaders must convince Soldiers that the bad TTPs and knowledge they've already learned and inculcated is insufficient and motivate their buy-in and trust to abandon their comfortable status quo for something better.

For multiple reasons, "untraining" efforts have a tragically high rate of failure, often yielding to mediocrity in acquiescence to low standards. Novice leaders who lack the legitimacy of expertise and experience are largely incapable of "untraining" their units without significant help from senior leaders of greater authority, expertise, and experience. The reasons for this are validated by virtually every psychological theory of organizational change. For this reason, it is absolutely critical that senior unit leaders with expertise and experience participate in leader certification activities to the maximum extent possible.

Using [John Kotter's 8-Step Organizational Change Model](#), we can envision the important role that senior unit leaders must play in unlearning bad knowledge or skills.¹¹ Leveraging their expertise, experience, and authority, senior unit leaders are critical in creating the climate for change by:

- (1) Creating a sense of urgency to unlearn/"untrain" bad knowledge or skills;**
- (2) Building a coalition of subordinate leaders — especially NCOs — who can implement the change; and**

(3) Creating a vision of what the higher training standards can and should achieve for the unit.¹²

Aligning this organizational change model with the 8-Step Training Model as soon as possible in the training glide path will significantly increase the chances of success for unlearning bad habits and achieving higher standards.

Pitfall #3: Putting Theory into Practice — Establishing Standard Operating Procedures

“It’s the little details that are vital. Little things make big things happen.”

— Coach John Wooten

Similar to his “five whys” method of dissecting problems, Toyoda also proposed that identifying practical solutions to problems requires asking “five hows” or five questions to determine the specific ways and means to implement solutions.¹³ For example, if the generalized solution to a tactical command and control (C2) problem involves “reporting to higher headquarters,” then the answers to the “five how” questions may reveal:

“Unit W should transmit Report X to Command Post Y using radio net Z in accordance with the unit PACE (primary, alternate, contingency, emergency) plan.”

This is an example of a standard operating procedure (SOP), and not having SOPs codified for common tasks to be trained is one of the biggest causes of shortcomings in training. SOPs bridge the gap between what the doctrinal tasks require you to perform and how exactly your unit will perform them under specific METT-TC conditions. Fundamentally, training involves the development of specific skills under specific conditions to achieve specific outcomes. Lack of specificity in tasks, conditions, or standards is counterproductive to good training outcomes. Detailed SOPs are critical to high quality training.

Army training doctrine subtly signals the importance of developing SOPs prior to training in TC 3-20.0, *Integrated Weapons Training Strategy (IWTs)*. Training tables for crews, squads, and platoons include SOP class instruction as the first “crawl”-level training gate to be accomplished prior to “walk”- and “run”-level training (see Figure 1).¹⁴ For a number of predictable reasons, Table I SOP instruction is one of the most consistently neglected gates in the ITWS training tables in many units, despite being critically important and doctrinally prescribed. Among the reasons why SOP development is consistently neglected is because it is both time-consuming and frequently lacks an organizing framework — in other words, with so many SOPs that could be developed, what are the required SOPs and where should units start? One technique for accomplishing this is to focus SOP development on adding detail to the performance measures (PM) within training and evaluation outlines (T&EOs) for mission-essential tasks (METs), battle tasks, and key supporting collective tasks.

While Army training doctrine provides T&EOs for many (but not all) unit tasks to be trained, the procedures prescribed within T&EOs often lack the level of detail required to enable practical application.¹⁵ This is not a dismissal of the value of T&EOs but an argument to supplement the performance measures prescribed in T&EOs with detailed SOPs that enable units to achieve the doctrinal standards. Good SOPs enable units to meet T&EO standards during training.

| <i>Echelon</i> | <i>Table I</i> | <i>Table II</i> | <i>Table III</i> | <i>Table IV</i> | <i>Table V</i> | <i>Table VI</i> |
|----------------|-----------------------------|---------------------------|---------------------|------------------------------------|-------------------------------------|-----------------------------------|
| | <i>PREREQ</i> | <i>PREREQ</i> | <i>PREREQ</i> | <i>Collective Task Proficiency</i> | <i>COORD / Rehearsal / Practice</i> | <i>Live-Fire Proficiency Gate</i> |
| | <i>CRAWL</i> | <i>CRAWL</i> | <i>WALK</i> | <i>RUN</i> | <i>RUN</i> | <i>RUN</i> |
| Battalion | TEWT <i>Live</i> | STAFFEX <i>Blended</i> | CPX <i>Live</i> | FTX <i>TADSS</i> | FCX <i>Blended</i> | CALFEX <i>Live-Fire</i> |
| Company | TEWT <i>Live</i> | STX-V <i>Virtual</i> | STX <i>TADSS</i> | FTX <i>TADSS</i> | FCX <i>Live-Fire</i> | CALFEX <i>Live-Fire</i> |
| Platoon | CLASS SOP <i>Live</i> | STX-V <i>Virtual</i> | STX <i>TADSS</i> | FTX <i>TADSS</i> | FCX <i>Live-Fire</i> | LFX <i>Live-Fire</i> |
| Section | | | | | | |
| Squad | | | | | | |

Figure 1 — Integrated Weapons Training Strategy Structure including SOP Class during Table I Training (TC 3-20.0, Table 1-1)

Part of the problem is that some units naively view low-resource training as low-quality training. The combination of this distorted outlook with a lack of focus on clearly defined tasks and standards causes units to miss opportunities to build mastery through low-resource repetition. A simple analogy for this is individual marksmanship training that routinely overlooks preliminary marksmanship instruction (PMI), dry-fire drills, and virtual training aids such as the Small Arms Marksmanship Trainer and the Engagement Skills Trainer. This kind of “live-fire only” outlook on marksmanship training inevitably leads to diminished training outcomes because the low-resource repetition necessary to build the fundamentals prior to the high-resource live-fire training was neglected. Ultimately, the units that achieve task mastery through frequent, well-planned, low-resource “crawl”- and “walk”-level training are arguably more prepared for combat than units who conduct infrequent “run”-level training events and do not achieve task mastery in the process.

So what’s the solution? It may be helpful to further examine the possible root causes of this training pitfall and recommend that the solutions simply acknowledge and reverse these trends. What drives units to consistently miss opportunities to conduct repetitious, low-resource training? Some reasons may include:

- 1) Persistent excessive bias toward training realism at the expense of training frequency;
- 2) Lack of focus on clearly defined tasks and standards for training;
- 3) Underestimating the number and scope of tasks to be trained due to lack of a complete METL crosswalk;¹⁷
- 4) Insufficient emphasis on training evaluations in accordance with step #7 of the 8-Step Training Model;¹⁸
- 5) Lack of motivation and/or discipline to conduct frequent low-resource training to high standards, due to perceiving such training as tedious or boring; and
- 6) Low standards for training proficiency.

Conclusion

If you belong to a unit that routinely experiences these training pitfalls, the good news is you are definitely not alone. But the bad news is it can be very difficult to overcome the inertia of the status quo to affect change. This is especially true because the recommended solutions to these shortcomings all require substantial effort above and beyond the typical “passing grade” for unit training management. Once mediocrity is accepted at a relatively lower level of effort, it can be very hard to generate buy-in to exert more organizational effort to achieve higher standards. Creating this momentum requires exceptional leadership that goes the extra mile in not accepting mediocre training readiness. Higher training standards are not only possible through avoiding these pitfalls, but they are also morally imperative for the combat readiness of our Soldiers.



Paratroopers from 2nd Battalion, 504th Parachute Infantry Regiment conduct a platoon live-fire exercise (Photo courtesy of the 1st Brigade Combat Team, 82nd Airborne Division)

Notes

¹ Army Doctrine Publication (ADP) 1-01, *Doctrine Primer*, July 2019, 1-2.

² Field Manual (FM) 7-0, *Training*, June 2021, 1-5.

³ FM 6-22, *Developing Leaders*, November 2022, 1-1.

⁴ American Society for Quality (ASQ), "Five Whys and Five Hows," <https://asq.org/quality-resources/five-whys>.

⁵ Army Techniques Publication (ATP) 3-21.8, *Infantry Platoon and Squad*, April 2016, J-6.

⁶ ADP 3-90, *Offense and Defense*, July 2019, 2-14.

⁷ FM 3-90, *Tactics*, May 2023, 2-19.

⁸ Ibid, 1-21.

⁹ ATP 3-21.8, F-14.

¹⁰ ADP 3-90, 3-2.

¹¹ John P. Kotter, *Leading Change* (Boston: Harvard Business Review Press, 2012).

¹² Ibid.

¹³ ASQ, "Five Whys and Five Hows."

¹⁴ Training Circular (TC) 3-20.0, *Integrated Weapons Training Strategy (IWTS)*, June 2019, Table 1-1.

¹⁵ Army Training Network, <https://atn.army.mil/>.

¹⁶ FM 7-0, 1-3.

¹⁷ Ibid, Appendix B.

¹⁸ Ibid, 3-9.

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