

A blue-tinted photograph of two police officers in a simulator. The officer in the foreground is gesturing with his hands while speaking. The officer in the background is holding a clipboard. They are standing in front of a large curved screen displaying a street scene.

INSTRUCTOR TOOLKIT

BEST PRACTICES GUIDE
FOR MILO RANGE SIMULATORS



MILO

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Why an Instructor Toolkit From MILO Range?

Training personnel, whether it's police, military, security, medical response, or civilians, to prepare for emergencies and critical incidents is a complex task for any instructor, let alone one new to simulation or without formal education in how to teach others. With this in mind, we have used our observations and conversations over several decades with our simulation customers and expert advisers, who have a broad range of skill sets and expertise, to assemble some MILO best practices. This can be used for reference when onboarding a new training instructor and for improving existing programs in creative ways.

Simply put, MILO simulations are most effective when they are integrated with methods rooted in adult learning theory and instructional design.

It is our sincere hope that this toolkit will go beyond helping to answer commonly asked questions, and will spark insight on how to use your MILO in creative ways. We want to assist you in your efforts to develop the next generation of professional learners, while increasing proficiency and capabilities for instructors. And as the users of this guide gain those insights and come up with additional best practices, we invite and encourage you to send them to us at **milocognitive@milorange.com** so that we may continuously update this material and build MILO's global community of practice for the next generation of MILO instructors.

"The MILO Range technology when utilized in conjunction with skilled instructors can be instrumental in training the mind's eye of the learner in order to reinforce standards within the law, develop better officers, and engage communities effectively."

- Larry Klaus, Chief of Police, Central Michigan University PD



What Does MILO Stand For?

MILO—Multiple Interactive Learning Objectives

We first designed and released the MILO simulators in 2004. It was unique as a single computer-based system that could accomplish several training tasks in the same location, including classroom-based lessons, instructional presentations, interactive individual and group testing and scoring, physical hands-on firearms, and use-of-force training exercises and scenarios. This multiple training and testing capability led to the acronym MILO. Broaden your objectives by continually finding ways to incorporate the full range of offerings in your MILO.

“I’ve always referred to the MILO as instructor-led training because it puts the instructor at the heart of our innovation process. Technology-led training would take the human out of something that requires creativity and interpersonal skills between the student and their teacher.”

- Robert McCue, Executive Director, MILO

Create Learning Objectives

Objectives should be both terminal, what you want the end goal to be, and enabling, the tasks that contribute to the end goal. In other words, a terminal objective is the overall outcome that the individual learning events will support.

For example, if you are training for homeless encounters, the terminal objective might be something like: “At the end of this training event, participants will be able to support individuals and the community by ensuring the homeless population has access to health and safety resources, with dignity and respect.”

The enabling objectives need to support the terminal objective and complete the statement: “at the end of this scenario, the learner will be able to ...”

This is where a learning objectives taxonomy, such as Bloom’s, is useful. Hierarchies or taxonomies of learning objectives can help organizations target higher-order thinking skills, such as problem-solving and decision making, as well as procedure based skills that require a high degree of practice and repetition to enhance automaticity.

“Whether it’s Bloom’s, Marzano’s New Taxonomy, SOLO, or Fink’s, a learning taxonomy will help you align, build on, and reinforce those concepts and skills being learned in the classroom with those being practiced in the MILO simulator. Find a learning taxonomy that aligns with the way your organization wants to develop and teach, and use it to create learning objectives for each skill that you need to train.”

- Dan Chavez, Former Assistant Commissioner for Training, NYCDOC

Examples in homeless training might include: “At the end of this scenario, the learner will be able to recall community resources for food, shelter, medical, and spiritual support.” This must be differentiated to the learner, based on where they are in their level of expertise to the task.

See page 9 on Assessing Proficiency With Rubrics.

Additional recommended reading:

[“Reenvisioning Police Training: The Need for Creative Thinking and Instructional Design” - Police Chief Online](#)



Keep a copy of your chosen taxonomy on hand. It will help keep you, or anyone trying to provide guidance in your training space, on task. If it doesn’t align with the taxonomy, it’s probably ineffective training and a waste of time.

Establish a Low-Stakes Environment

Testing environments are high stakes, where danger is present and failure is discouraged. A learning environment should be the opposite. Know the difference between training and testing, and be clear in identifying when learning—versus testing—is the objective.

In a low-stakes, psychologically safe setting, participants feel free to share their lack of knowledge, individual concerns, or areas of confusion that they might otherwise avoid disclosing. Learners in this setting understand that feedback is an expected component of the learning process. It puts people in the right mindset to learn.

Be intentional about creating a psychologically safe space to learn and grow. This means priming learners, especially novice learners, with language that helps them understand that they are in the MILO space to **improve** themselves, not **prove** themselves.

“Research shows that the process of self-discovery—and a productive, guided method to process those discoveries—allows officers to relate training concepts and learning objectives to the practical realities of the job. This is especially important when training in contentious areas, like implicit bias.”

- Lois James, Ph.D., Assistant Dean of Research, Associate Professor, Washington State University

Additional recommended reading:

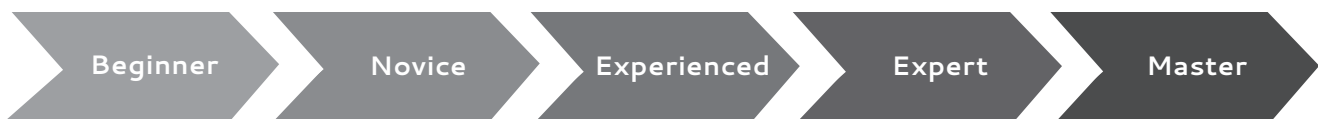
[“On-The-Job-Training—Problems and Solutions” - Neuroleadership Institute](#)



As an instructor, model this behavior by asking for feedback from your trainees. Show them that accepting feedback is part of having a growth mindset, and that mistakes are encouraged in your MILO room, so long as everyone learns from them. An advanced professional in any area, should be enthusiastically seeking input on how to improve in every way.

Know Your Audience

Officers vary in their level of expertise for every task. You may have a 20-year veteran of the agency that has grown up in the police force and has become a leader in school settings and community policing but has limited experience with active threats. In contrast, you may have a junior officer with a military background that has extensive experience with active threats but limited interaction with de-escalation or interviewing youth assault victims. These learners should train differently in every context because their development paths are different. All experience can be valuable, and as a proficient instructor, find a way to bring all sets of experiences into the equation to benefit all learners.



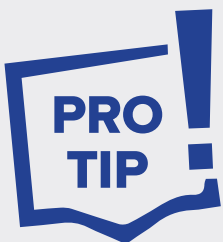
A useful tool for finding where your learner is on a scale from beginner to master is a pre-assessment. This can be done in a variety of ways such as a discussion, an observation, or a quiz. Make sure it's context and task-specific to let you know how to help them develop and progress.

"When using the MILO for untrained civilians, treat them as beginners with respect for their primary vocations. Select scenarios that will be useful, without being traumatizing. The point is education and preparedness, but that should be done carefully without causing harm."

- Thomas Guynes, School Resources Officer and Civilian Active Threat Trainer

Additional recommended reading:

["Train to Standard, Not to Time \(Even When Time Is Limited\)" - MILO](#)



There is no need to let a learner know they're being evaluated for competency in a task, or to let them know where they landed on your proficiency scale for that task. This is not an overall label for a learner, especially if you think that information could be used in other ways than intended.

Warm Up, Ease In

Creating space for a “warm up” allows the learner to get accustomed to the environment and the systems they are about to use. Many students may need a moment to get calibrated to the setting, and to gain an understanding of how the technology works. Some learners may be surprised at the way the weapons respond, either having little experience with a realistic recoil, or coming from another unit or agency where they used something different. Some learners may come into the MILO room thinking it’s a game and that the weapons are toys. Weapons and scenarios should be taken seriously, and easing learners into them is an effective way to set the stage for realistic behavior.

Running a firearm skill drill for familiarity, such as plates or other static targets, will quickly help them realize the weapons function just like real ones—and in many cases are actual converted weapons. In addition to the weapon feel and recoil, it’s useful for them to see that the laser is as accurate as a bullet so that they can gain confidence in the fact that the weapon and MILO scenario will respond to the level of their performance. As you ease them in, increase the level of intensity with a GraphX exercise that employs more shooting drills and skill.

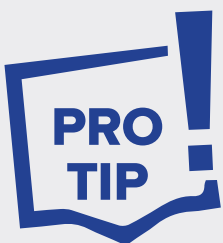
Giving your students time to get acclimated to the training space is crucial to the learning process. When students feel comfortable with the system, the weapons, the instructor, and the training environment, they are more open to learning and receiving feedback. This can alleviate concerns the student may have about what they are about to experience, and will open them up to learn from the training.

“When a student picks up a new and unfamiliar weapon, they have a tendency to make the weapon fire instead of letting the weapon fire by providing the necessary inputs. The result is anticipation of ignition and low hits on target. When you give students an opportunity to get accustomed to the training environment, the weapon, and how the technology responds to their input, then you get realistic student results consistent with live-fire training. When you get consistent weapon-oriented results, students focus more on decision-making, communication, and other critical skills.”

- Todd Fletcher, Owner/Instructor, Combative Firearms, LLC

Additional recommended reading:

[“Target Selection to Maximize Training” - American Police Beat Magazine](#)



Make sure you have the latest GraphX and targetry on your MILO by contacting tech support (866-676-7567 or support@milorange.com) for updates every 6-12 months. This will ensure you have the latest software version as well. Make a point to use new drills and scenarios every time you sit down at the MILO instructor station to ensure you have a full understanding of the capabilities of the system.

Assess Proficiency With Rubrics

A rubric is a scoring guide with detailed criteria for grading. It can be as simple or complex as you like, but needs to describe what the expected level of proficiency looks like on any given task or skill.

Know what great looks like for each task, and each level, so that you can assess appropriately. Place value and recognition on the trainee's progress over time, and guide them along their journey with increases in difficulty every time they master the previous level.

For instance, if you're training for homeless encampments, a grading rubric might look like the one being referenced in Table 1. **Note:** Every step up the levels of expertise also includes the requirements of the levels under them.

Has skill
 Does not have skill

| Proficiency Level | | | | | |
|--|----------|--------|-------------|--------|--------|
| Competency | Beginner | Novice | Experienced | Expert | Master |
| Makes use of emotional regulation techniques to maintain composure and de-escalate. | | | | | |
| Chooses whether to break contact or engage with aggressive bystanders and model appropriate interaction. | | | | | |
| Determines the need for assistance through situational awareness. | | | | | |
| Recalls community resources for food, shelter, medical, and spiritual support when asked. | | | | | |
| Demonstrates ability to respond to dispatch with accurate information. | | | | | |

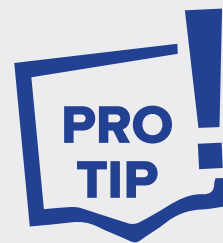
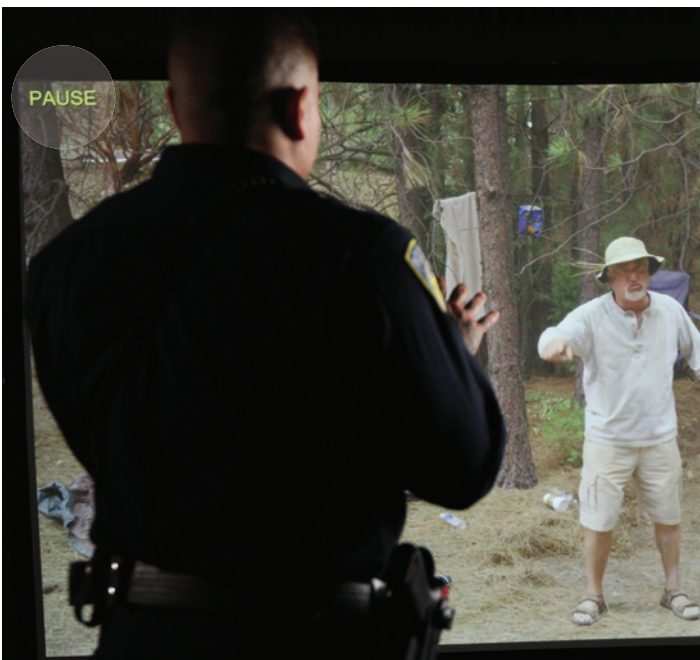
Table 1: Sample Proficiency Rubric

“As a leader of a police agency, the most effective approach for you to have confidence that staff behavior and performance is reflective of organizational expectations, is to ensure alignment between policy, training, and operational philosophy. I believe that the MILO room is one place to verify that. You can legitimately answer the questions; Does our training strategy align with our organizational culture and operational philosophy? Is there cultural alignment between our expectations and those of the communities we serve? The only way for police leaders to achieve this desired outcome is for them to be present in the MILO room, as instructors and/or active observers.”

- Jerry Clayton, Washtenaw County Sheriff

Additional recommended reading:

[“Beyond Shoot/No shoot: The Evolution of Police Simulator Training” - American Police Beat Magazine](#)



Embrace the pause button. If you observe a learner stumbling or behaving inappropriately to the level you've assessed, press pause and help them course correct. This can be a great opportunity to offer additional guidance or ask questions.

Populate the Knowledge Base

Each organization faces its own unique set of challenges and circumstances. Simulations are most impactful when they are customized locally to meet those unique challenges and circumstances. The knowledge base is part of that local customization.

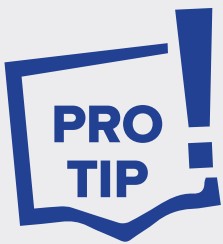
Create your consolidated library of agency-specific materials in a variety of file formats, right in your MILO. Upload anything that supports and reinforces the organization's priorities, such as relevant policy and procedures, slide decks, body or dash cam footage, etc. This is a great place to keep the courses that each scenario supports and reinforces.

In addition, showing footage of “worked” examples in the form of actual incidents before similar scenarios are presented is an effective way to accelerate learning by easing the learner's cognitive load. Showing instances of exemplary performance also demonstrates what “great” looks like and reinforces performance expectations. If it can be opened in Microsoft Office, it can be stored in the MILO knowledge base.

“The knowledge base is the best and most easily customizable feature of the MILO. From an educational perspective, it should be used more than a weapon.”

- Dr. Joy VerPlanck, Educational Technologist

Additional recommended reading:
[MILO Range KnowledgeBase Guide](#)



Keep the Knowledge Base organized and label documents so you can easily retrieve items during training. If you have an item that aligns with a specific scenario, label it the scenario name for quick access.

Make It Real

Use the full room, including barricades and visual obstructions. The MILO space should be a tactile, full-body experience. Identify or document all required actions, roles, and touch points for each scenario and make sure they're part of the scene. Ensure participants are aware of the actions that precede the incident and those that immediately follow.

For example, an incident like a traffic stop includes a conversation with dispatch, an interaction with the driver, situational awareness for safety on the road, and report writing. All of that happens if it goes well. In order to train for a successful incident, all of these factors should be accounted for as part of training.

One MILO military customer collaborates with their legal unit to set up a mock trial in the adjacent room so that if a bystander is shot, for instance, the learner has to go to the next room and relay and defend their actions in court. While that level of best practice may not be available in all agencies, consider collaborating with your legal department to develop a list of questions that might effectively simulate the realism of a prosecutor's line of questioning.

“Practice like you play needs to be the same mentality as training like you work. MILO instructors need to set the stage for each scenario with the same respect as the real world. That means modeling professionalism—and intensity—in the training room.”

- Todd Castleberry, Ph.D., Assistant Professor,
Department of Kinesiology, Louisiana Tech University

Additional recommended reading:

[“Train as you Fight!” — The Need for Real Faces in Immersive Training - MILO](#)



Use the 3D sound effects to drop relevant sounds during the scenario to see if they include it in the report. Add that to the rubric for experienced and up to see if they were able to manage the additional cognitive load.

Optimize the Debrief

This isn't just for review of shot placement. Conduct debriefs or after action reviews in a structured manner, with as clear of an objective as the scenario itself. This includes having standard legal questions to ask the learners, as well as any observers in the room. If they are in the room, they should be considered participants and should be able to contribute their observations and knowledge as part of the learning experience.

Tactics, situational awareness, public safety, de-escalation, policy and procedure, media considerations, and mental wellness should all be considered.

Take notes and keep those notes organized. Use the "flag" feature to pinpoint moments in scenarios that you need to call attention to in the debrief. For instance, if you noticed the learner had their finger on the trigger before they were justified in using that level of force, drop a flag. This is key information that won't be picked up without a laser activation, so it's useful to use the software for manual entry. Familiarize yourself with all of the manual entry features so that you can create inputs for later review.

Use the debrief space to draw the learner's attention to physiological signals and allow them the time to identify and label them. This is a good time to lead the discovery process, which will help them identify triggers and potential blind spots.

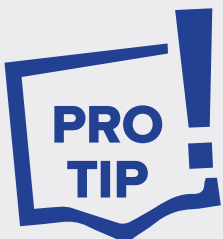
Do not feel you must allow the entire scenario to be finished before giving feedback. Immediately stopping a scenario going poorly and providing feedback to encourage a better outcome is equally likely to lead to the officers learning.

"In both recruit and in-service programs, instructors should select scenarios that are likely to be encountered in their areas of operation, and support that training with legal discussion with qualified use-of-force experts."

- Rich Schott, Use-of-Force Expert and Former FBI Legal Training Unit

Additional recommended reading:

["Police Training Needs Work" - American Police Beat Magazine](#)



Use the feedback from these sessions to find patterns in your agency. Is everyone making the same mistake? Is everyone relying on the same legal assumption? If so, consider what gaps need to be filled in your instructional methods and bring in the experts for a dedicated learning event.

Reset the Learner to a Healthy Baseline

While we all know what the job is like outside of the MILO space, instructors may not be aware of the intensities, triggers, and history of a learner's life outside of their job. You never know what they had to deal with before their shift, or what they may be going home to. Someone may be shooting a high schooler in an active shooter scenario who looks just like their own child they sent off to school that same morning. Don't assume that every learner is fully desensitized to the nature of their job, nor should they be.

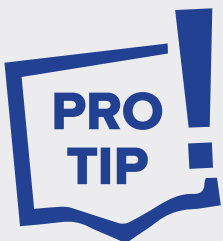
When you finish training, don't immediately hand them their service weapon back and send them back to work, or home for the day. Give them a mandatory opportunity to engage their parasympathetic nervous system. This can be done through any number of methods designed to restore their heart rate and breathing to a pre-adversity condition. Maybe that's wearing a VR headset designed to calm them, a breathing app on their phone, classical music, or laying on the floor in a dark room doing "Savasana."

"As more research reveals the short- and long-term detriments of traumatic events on the nervous system, the psyche, and ultimately the lives of first responders, it's crucial for the application of that research to be embedded in MILO training. Just as ultimate preparedness is the goal of simulation training, so too should be complete recovery of the first responder from that training. In order to achieve this, equal value must be placed on both recovery and a successful assessment of their performance."

- Yael Swerdlow, CEO and Founder of Maestro Games, SPC

Additional recommended reading:

["Wellness Programs Aren't Working—Try This Instead" - American Police Beat Magazine](#)



Take care of your own mental health, also. If you're no good to yourself, you're no good to anyone else. Before your learners come into the MILO room, take a few moments to make sure you haven't brought your own external stressors. And after your learners depart and you shut down the MILO for the day, take a few minutes for yourself. Do your breathing exercises, stretch, or listen to calming music. This is your time to reset to a healthy baseline too.

Invite Others

The MILO space is not a secret hideout. It's a place where children and teens can learn how to engage with police collaboratively, community members can see compassionate de-escalation training, and military members and their families can come together for morale activities. It can also be a place to develop policies and processes with diverse perspectives.

If you have adjacent units or organizations that don't have this kind of training tool, invite them to do cross-functional training with you. For instance, police units can invite dispatch, medics, and fire departments to do robust end-to-end training. This breaks down silos, builds cohesion, and identifies gaps in processes.

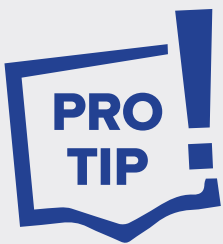
Invite members of the community, students, and professionals. The people you think of as citizens you serve are actually thought leaders and advisors from aspects of your community that are deeply affected by your jobs. Let them help you design and script new scenarios. Send what you develop to **milocognitive@milorange.com** for production, or if you have a MILO that includes the course designer software, invite them to be part of the process from scripting to post-production. Collaboration builds community.

“Preventing targeted violence and terrorism requires a whole of society, multidisciplinary approach. Local communities best know their capacities to shape non-law enforcement measures to increase protective factors and reduce risk factors related to mobilization towards violence. The government’s role is to provide educational, technical, and financial assistance to communities developing local prevention frameworks. Inviting members into the MILO room from at-risk populations within the local community, as well as regional government representatives, can help align common goals.”

- Dr. Noël Lipana, President of the DJD Art Foundation

Additional recommended reading:

[Media Toolkit: Simulation Training PR Best Practices](#)



Some communities may even be able to support the scenario creation process with staffing, as actors or eager-to-learn film gurus that would love the experience to film and edit content.

