

Cognitive Load in Police Training

A Key to Effective Performance

Joy VerPlanck, D.E.T.



MILO
P: 800.344.1707
E: milocognitive@milorange.com
W: milorange.com

Cognitive Load in Police Training

A Key to Effective Performance

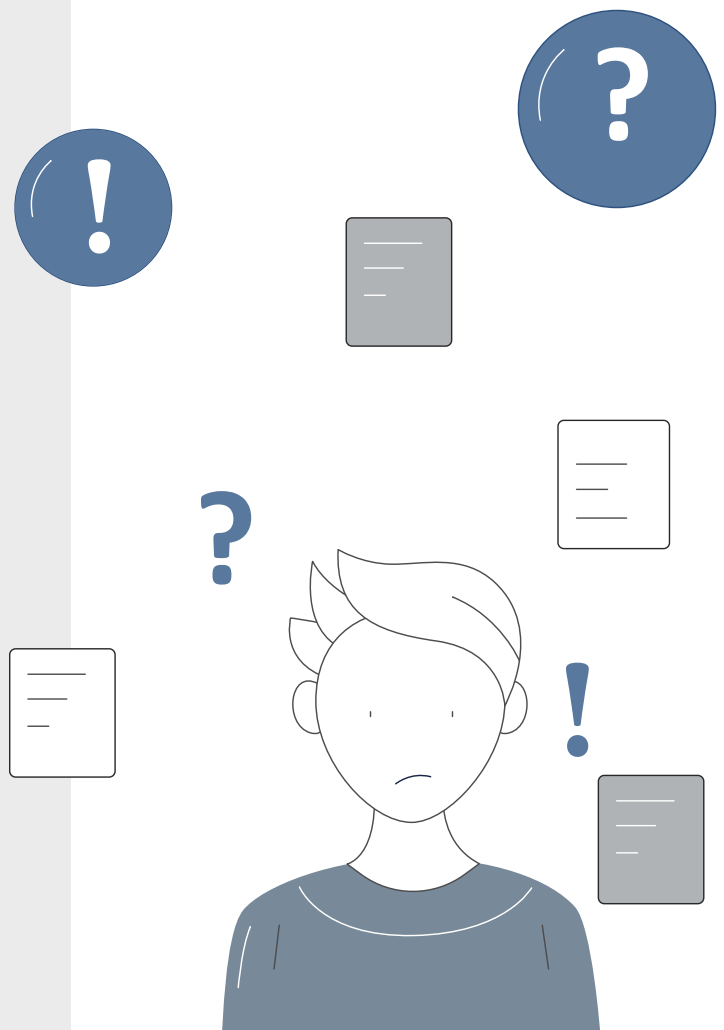
Police trainers face a significant challenge: how to effectively train officers to the same high standard when they arrive to the training with varying levels of experience. Policing demands quick thinking and complex problem-solving under stressful conditions, yet the path to mastery is rarely straightforward. Many well-intentioned instructors are already working with limited time and resources—and they may not realize that treating all officers the same can make their jobs harder and even diminish the effectiveness of those who are already well-trained.

Understanding Cognitive Load Theory (CLT) can revolutionize police training by making it more efficient, impactful, and tailored to the needs of both new and seasoned officers. While it requires some upfront effort, the long-term benefits are significant. Fortunately, leading researchers in law enforcement training [have already done much of the heavy lifting](#) to align this proven theory with modern policing practices. It may seem like a lot to digest, but this summary will break it down for you.

Why Cognitive Load Matters

Cognitive load refers to the mental effort required to process information. Learning suffers when training is poorly designed, poorly facilitated, or fails to account for trainees' cognitive capacity. **Imagine a rookie officer trying to absorb protocols for handling a domestic dispute while also navigating legal terminology, cultural nuances, and tactical considerations.** Adding unnecessary stress to simulate real-world conditions before they've mastered the basics can overwhelm their ability to learn, resulting in frustration, limited retention, and inappropriate application when it matters most.

CLT highlights that our working memory (WM) has strict limits, capable of holding only a few pieces of information at a time. When this system is overloaded, it hinders the development of schemas—mental frameworks crucial for identifying patterns and solving problems efficiently. For police officers, regardless of experience, robust schema development often marks the difference between hesitation and confident, decisive, and reasonable action in critical situations.



Types of Cognitive Load

CLT identifies three types of cognitive load, all of which must be managed for effective learning:

Intrinsic Load

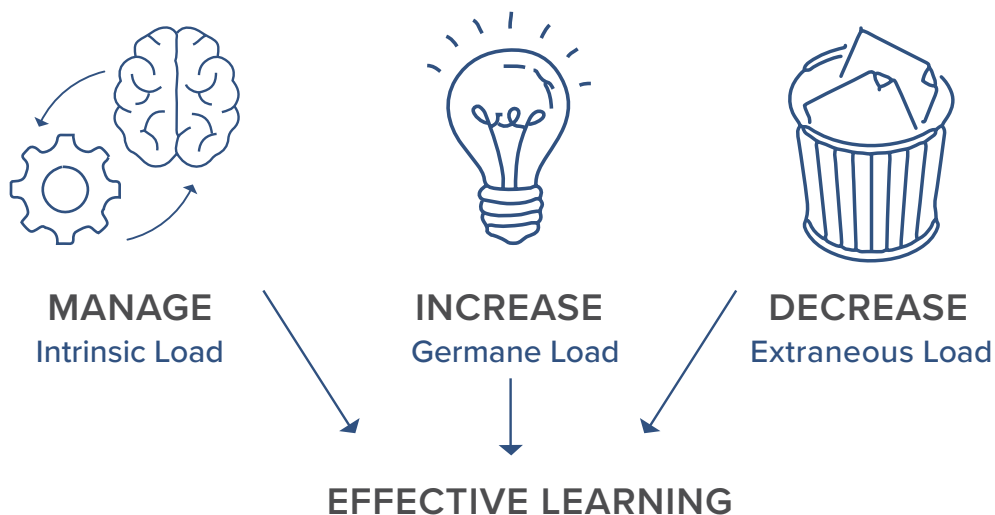
Intrinsic load is the complexity inherent to the material. For instance, understanding use-of-force procedures requires grasping multiple interconnected concepts like verbal and tactical techniques, legal frameworks, and decision-making models..

Germane Load

Germane load refers to mental effort directed toward integrating information into long-term memory. Training that encourages problem-solving and reflection enhances germane load.

Extraneous Load

Extraneous load is unnecessary mental effort caused by poor training design. In simulation training, this can include overly detailed, irrelevant environmental features—such as intricate wall posters, flashing lights, or unrelated objects—that divert attention from key scenario elements.



The Novice vs. Expert Divide

A critical insight of CLT is the distinction between novices and experts. New and seasoned officers process information differently due to varying levels of schema development. For inexperienced officers, high intrinsic load material—like coordinating communication and tactics during an active shooter scenario—requires breaking down tasks into manageable parts. For experts, this much guidance might hinder learning, as they already possess schemas to guide their actions.

Trainers must be mindful of the expertise reversal effect, which happens when methods designed for novices are used with experts. While step-by-step instructions are essential for guiding new officers, they can disengage experienced officers and hinder their progress. Understanding where officers stand in their learning journey is key to tailoring training approaches that keep them engaged and advancing.

To optimize training outcomes, it's essential to assess trainees' cognitive load capacity and adapt the instructional approach.

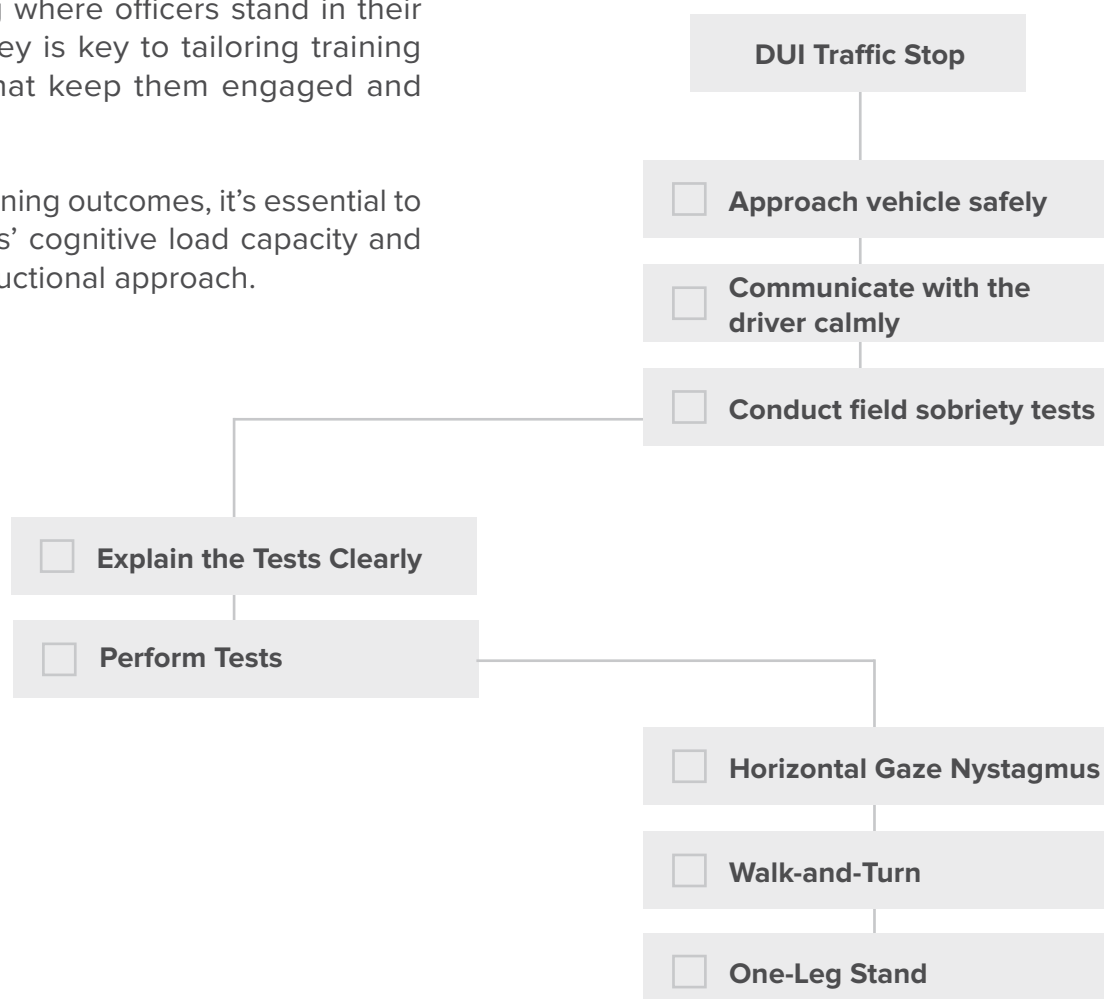
Here's how CLT can guide training design:

For Novices: Simplify and Scaffold

Break complex tasks into smaller, simpler components.

This sequencing effect makes learning easier by letting trainees focus on one step at a time before putting everything together. For instance, when teaching how to conduct a DUI traffic stop, start with isolating individual steps—such as safely pulling over a vehicle, communicating with the driver, and conducting sobriety tests—before combining these actions into a full scenario.

An example of isolating select steps when conducting a traffic stop



Use worked examples to illustrate problem-solving processes.

This makes it easier for trainees to follow along by showing step-by-step instructions on how to handle a situation so they don't get stuck trying to figure it out on their own. For example, when instructing novice officers on de-escalation techniques, provide an example of what success looks like by walking them through a recorded scenario where an officer effectively defuses a tense interaction, explaining each decision and action step-by-step.

Minimize extraneous load by integrating visual aids with verbal instruction.

This helps trainees understand the material more easily by combining clear visuals with simple explanations, so they aren't overwhelmed by too much information at once. For instance, when teaching room clearing, a diagram could show the tactical formation and path of each officer upon entry, as well as the most commonly missed areas. Explaining each component in the diagram can increase their ability to retain the details when they practice what they've learned.

For Experts: Encourage Independent Problem-Solving

Gradually reduce instructional guidance.

This fading effect gives trainees more independence as they increase their mastery of the skills, building their confidence and decision-making ability. For instance, during advanced tactical training, start by providing detailed step-by-step instructions for clearing a building, then gradually reduce guidance by introducing scenarios where trainees must plan and execute the operation independently, building their confidence in decision-making under pressure. Eventually, the amount of speaking during training will shift from trainer to student as their expertise increases.

Incorporate realistic, variable scenarios to enhance adaptive schema development.

Challenging trainees with widely varying scenarios helps refine their ability to handle complex, unpredictable situations on their own. For instance, instead of always using a standard shoot/no-shoot traffic stop scenario, vary the training by introducing unpredictable elements, such as uncovering evidence of human trafficking or dealing with a panicked passenger, forcing trainees to adapt their approach and refine their decision-making skills in complex, dynamic environments.

Use imagination exercises to mentally rehearse complex scenarios.

Encouraging trainees to visualize handling advanced situations step-by-step helps deepen their expertise and sharpen their brain's ability to respond. For instance, before engaging in a scenario, ask trainees to close their eyes and mentally rehearse responding to an active shooter incident, visualizing each step—their response to the scene, entry into the location, and movement to the threat in coordination with other responding officers. After completing the scenario, have them reflect on their actions to determine if their mental rehearsal aligned with their performance, helping to deepen their expertise and sharpen their ability to respond effectively.

Optimizing Curriculum Design Based on Learner Progression

Once you know where your learners are on the novice to expert scale in a particular context and what you need to train them on, you can create a meaningful curriculum that optimizes cognitive load with training designed for their individual needs as learners.

Curriculum Example: Applying Cognitive Load Theory to De-Escalation Training

Novice

Learning objective: Recall foundational knowledge of de-escalation techniques.

Instructor action: During a simulated traffic stop with an agitated driver, pause the scenario and ask the officer to list and explain three de-escalation techniques that could be used in the situation.

Evaluation: The instructor observes the learner, assessing their use of the techniques outlined in [Techniques for the Officer to Apply in the Scenario] and providing prompts or corrections as needed.

Techniques for the Officer to Apply in the Scenario

Active listening

The practice of fully concentrating on, understanding, and responding to a speaker to demonstrate empathy and build trust.

Tone Modulation

The deliberate adjustment of one's voice pitch, volume, and cadence to convey calmness and reduce tension.

Proxemics

The use of physical space and distance to influence interactions and reduce perceived threats.

LEVEL UP

If the learner gets all three correct: Ask if grounding techniques—strategies that help individuals focus on the present moment to reduce emotional distress and regain control—might be appropriate in this situation.

Curriculum Example: Applying Cognitive Load Theory to De-Escalation Training

Proficient

Learning objective: Identify different types of agitation and apply multiple techniques.

Instructor action: Prior to a simulated traffic stop with an agitated driver, the instructor adds context that they are safely pulled into an empty parking lot, and someone is “stimming” in the back seat. If necessary, explain stimming as an indicator of autism and discuss multiple ways it can present.

Evaluation: The instructor watches for three techniques of de-escalation.

Techniques for the Officer to Apply in the Scenario

Active listening

Not escalating the driver by speaking louder or talking over them, and paraphrasing the driver’s frustrations to validate emotions.

Tone modulation

Using a steady, calm tone to reduce high emotions.

Proxemics

Adjusting distance to balance authority and safety.

LEVEL UP

If proficiency is evident or the learner is familiar with the scenario:

Introduce external stressors (e.g., a dog barking or an audible recording of an autistic person engaging in anxious repetition). During the debrief, reflect on what other nonverbal actions they could have taken, such as turning off lights or asking autism-related questions.

Curriculum Example: Applying Cognitive Load Theory to De-Escalation Training

Expert:

Learning objective: Influence a senior officer in an escalated situation.

Instructor action: The instructor engages an additional officer to role-play a senior officer becoming escalated by the agitated driver in a simulated traffic stop.

Evaluation: The officer takes intervening measures to de-escalate or remove the senior officer from the scene.

LEVEL UP

Increase complexity with a bystander filming the encounter. Ask questions in the debrief about policy and next steps for the escalated officer.

Stress, Trauma, and Cognitive Load

There's a compounding reality in policing that must be addressed: stress, PTSD, and depression have significant negative impact on an individual's cognitive load capacity, posing additional challenges for police trainers. [Research](#) highlights that these conditions impair working memory, reduce attentional focus, and increase the mental effort required to complete even routine tasks. For officers experiencing such mental health challenges, the cognitive resources available for learning are diminished—effectively making the additional strain an extraneous load.

As [Joe Smarro](#), best-selling author and advocate for mental health in policing, [explains](#):

“We [cops] struggle, and when we have a culture that doesn’t really afford the opportunity to come forward and say “I’m not doing well” because of fear of discipline, punishment, taking your gun away, putting you on the bench—allowing you not to do your job—then a lot of them are just going to keep this in, and it just leads to a lot of the issues...where it’s going to come out somewhere.”

Training environments must account for the cultural norm of this hidden extraneous load by reducing non-essential demands and providing a supportive atmosphere. Incorporating mindfulness techniques, stress management tools, or access to mental health resources into the training framework can help mitigate these impacts, ensuring trainees can better engage with learning material despite external pressures. Recognizing these challenges is essential for creating a training program that fosters resilience and success.



The Role of Trainers

For some instructors—particularly in large departments—the idea of assessing every officer’s cognitive load may seem impractical.

Frankly—when resources are scarce, and the trainer is pressured to simply get through compliance training, taking small steps in the [MILO simulator](#) is a great start to managing cognitive load. Observing how recruits respond to training and adjusting techniques accordingly can go a long way. Are officers struggling with multitasking during a scenario? Simplify the task and gradually reintroduce elements. Are seasoned officers disengaged? Increase task complexity and encourage independent analysis. Do your best with what you’ve got, and feel confident that small, incremental changes can make a significant impact over time.

The Paradigm Shift is Here

Effective police training isn’t just about knowledge retention; it’s about transferring that knowledge to high-stakes, rapid-evolving situations. [Reenvisioning police training](#) starts with providing the resources for law enforcement trainers to take a more thoughtful approach. By applying adult learning principles such as CLT, trainers can create a more effective learning environment, better-equipping officers to handle the diverse challenges they face in the field.



MILO
P: 800.344.1707
E: milocognitive@milorange.com
W: milorange.com