

Stop Teaching Everyone the Same Way



Put three workers in the same annual refresher class. One started two weeks ago. One has been doing the job for four years. One has been doing it for 22 years. Then give all three the same 90-minute presentation, the same examples, the same pace, and the same test.

That is normal in safety training. It is also a strange way to teach.

The new worker may be trying to learn the language of the job while keeping track of unfamiliar equipment, rules, warning signs, and procedures. The four-year employee may know the basics but still need practice with unusual conditions. The veteran may have heard the opening 40 minutes so many times that the material barely requires attention.

All three can leave with a completion record. That does not mean all three received the training they needed.

A better safety trainer does not begin with the assumption that everyone in the room needs the same amount of explanation. The trainer begins by asking a more useful question: what level of knowledge, support, challenge, and practice does this person need to perform safely under the conditions they will face?

THE RISK

Too little support can overwhelm a novice. Too much basic explanation can disengage an experienced worker and hide the areas where expertise still needs to be tested.

THE TRAINER SHIFT

Move from one-size-fits-all delivery to a common safety standard with different levels of assistance, practice, and challenge.

THE BUSINESS CASE

Use training time where it changes performance. Reduce unnecessary seat time while putting more attention on the mistakes, variations, and decisions most likely to create loss.

The same standard does not require the same instruction

Safety requirements should not change because someone is experienced. A veteran does not get a lower fall-protection standard, a looser lockout procedure, or more tolerance for unsafe equipment operation. What can change is the route used to establish and strengthen the required knowledge and skill.

That distinction matters. Differentiated training is not about making the course easier for experienced employees. In many cases, it should make their training

harder. The beginner may need a worked example. The veteran may need a messy scenario in which the normal control is unavailable, the work has changed, and the safest answer is not immediately obvious.

OSHA's training guidance already points employers toward this logic. Its recommended practices call for needs assessment and job-specific training, and its Susan Harwood best-practice guidance specifically recommends learning about a target population's knowledge and experience before designing training. OSHA has also recognized in equipment-training interpretations that previous training and experience can matter, but only when the employer evaluates whether that prior learning is relevant and whether the worker is competent in the current conditions.

In other words, prior experience should influence training design. It should never be used as a substitute for evidence of competence.

Years of service tell you how long someone has been exposed to the work. They do not tell you what that person understands, what habits they have developed, or how they will respond when the work changes.

Why one-size-fits-all training fails in both directions

A mixed-experience classroom creates two very different instructional risks at the same time.

The first is under-support. A novice is asked to solve a problem before they have built the mental model needed to understand it. Instructions move too quickly. Important terms are unfamiliar. The worker may remember isolated rules without understanding how the pieces connect. Because everyone else appears comfortable, the new person may be reluctant to slow the class down by asking basic questions.

The second is over-support. An experienced worker receives detailed explanations for information already stored in long-term memory. The lesson requires very little thought, so attention falls. The worker can predict the next slide, recognize every answer, and pass the assessment without having to examine whether their own practices are still sound.

The dangerous outcome is not simply boredom. It is that familiar training can create the appearance of competence while never testing the conditions most likely to expose a weakness.

The expertise-reversal effect gives trainers a useful warning

Learning science has a name for part of this problem. The expertise-reversal effect occurs when instructional support that helps someone with low prior knowledge becomes less helpful, and sometimes counterproductive, for someone who already knows the domain well.

A 2025 meta-analysis in *Learning and Instruction* examined 176 effect sizes from 60 experimental studies involving 5,924 participants. Learners with low prior knowledge performed better when they received high-assistance instruction. Learners with high prior knowledge performed better under lower-assistance instruction. The researchers concluded that prior domain knowledge is an important learner characteristic to adapt to when deciding how much assistance to provide and how difficult a task should be.

The implication for safety training is practical. The trainer should not remove support simply because a worker looks experienced. The trainer should adjust support

after determining what the worker already knows. Novices often benefit from structure. Experienced workers often benefit from being required to retrieve, diagnose, justify, adapt, and solve.

Learner state	What usually helps	What commonly goes wrong
Low prior knowledge	Clear explanations, worked examples, demonstrations, guided practice, immediate feedback	The trainer moves too fast or introduces complex scenarios before the learner understands the basic model.
Developing knowledge	Practice with variation, fading prompts, comparison, troubleshooting, feedback on decisions	The worker receives endless basics and never develops judgment for conditions outside the textbook example.
High prior knowledge	Less prompting, harder cases, exceptions, conflicting information, diagnosis, justification	The veteran is made to repeat introductory material and is never required to expose assumptions or weak habits.

Experience is not expertise

This is the point where differentiated training can go wrong. Managers know who has been around the longest, so they assume they know who belongs in the advanced group.

That is not enough.

An employee may have 15 years of excellent experience. Another may have repeated the same weak practice for 15 years. A third may be highly competent on one machine but newly exposed to a different configuration, site, customer, chemical, process, or team structure.

OSHA has made this distinction directly in guidance on equipment operators. A history of operating machinery does not automatically make someone qualified. What matters is whether the worker has acquired the knowledge and skill necessary to operate safely. That is a valuable principle well beyond equipment operation.

Better trainers therefore diagnose prior knowledge instead of guessing it from seniority.

Five minutes of diagnosis can change the whole session

A training needs assessment does not have to become a new administrative project. For many sessions, the trainer can establish useful information in the first few minutes.

Before showing the first instructional slide, ask people to solve something. Give them a short scenario, a diagram, a pre-use inspection, a sequence, or a decision. Ask them to explain not only what they would do, but why.

The purpose is not to embarrass anyone or allow experienced workers to test out of legally required training. It is to identify what the room already understands and where the gaps are.

- Ask workers to identify the three most serious hazards in a realistic scene.
- Give them five steps from a procedure and ask them to put the steps in order.
- Present a common decision and ask what condition would cause them to stop or escalate.
- Ask an experienced employee to explain why a control exists, not just name the rule.
- Use a short confidence rating beside each answer. High confidence paired with a

weak answer deserves special attention.

The answers tell the trainer where to slow down, where to accelerate, and where apparent experience is hiding uncertainty.

The Build, Stretch, Challenge model

A practical way to differentiate safety training is to keep the outcome common while changing the amount of support and the complexity of the task.

Think of the room as three instructional zones rather than three permanent types of employee. A person may be in the Challenge zone for forklift operations and the Build zone for a newly installed automated system. The zone follows competence in the task, not status in the organization.

Zone	Trainer objective	What the learner should be doing
BUILD	Create a reliable mental model and correct basic performance.	Understand the hazard, see a correct example, practise the core sequence, receive frequent feedback, and explain the reason for critical steps.
STRETCH	Make the skill usable under normal variation.	Solve changing examples, compare good and weak approaches, troubleshoot predictable problems, and perform with fewer prompts.
CHALLENGE	Test expertise under uncertainty and prevent complacency.	Diagnose unusual situations, handle conflicting cues, justify decisions, recognize when the normal approach no longer fits, and coach others without normalizing shortcuts.

Build the novice before testing the novice

Novices need enough structure to understand what good performance looks like. Telling a new worker to 'use judgment' before they understand the hazard, the control, and the limits of their authority is not sophisticated training. It is ambiguity.

In the Build zone, the trainer should reduce unnecessary complexity. Define unfamiliar terms. Show the correct sequence. Demonstrate what matters and why. Let the learner practise one meaningful unit before combining several decisions at once.

The trainer should also watch cognitive load. A new employee can be trying to learn the task, the site, the crew, the reporting system, the equipment, and the culture at the same time. CCOHS specifically advises pacing orientation because a new employee can absorb only a limited amount of information in the first few days.

Stretch developing workers with variation

Once the basics are stable, the trainer can begin removing support. This is where many refresher programs fail. They keep explaining the original rule rather than asking the worker to apply it under different conditions.

Stretch training should introduce the types of variation that occur in the real job without jumping immediately to rare catastrophes. Change the weather. Change the equipment. Add a contractor. Remove the normal tool. Change the access route. Introduce a rushed handoff. Put a familiar procedure into a slightly unfamiliar environment.

The worker's task is no longer to repeat the rule. It is to decide whether the rule

still fits, what additional information is needed, and when the work should stop.

Challenge experienced workers instead of punishing them with repetition

Experienced workers should still receive required training and refreshers. The mistake is assuming that refresher means replaying the introductory course.

A veteran often brings a richer mental model to class. Use it. Present a case with missing information. Ask the learner to find the weak assumption. Show two plausible controls and require a choice. Give them a procedure that no longer fits the physical conditions and ask what must happen before work can continue.

Experienced workers can also benefit from teaching, but only if the exercise is structured. 'Tell the new people how you do it' can spread good practice or normalize a shortcut. A better assignment is to have the experienced worker explain the critical decision points, the reason behind the control, and the conditions that would make them stop the job. The trainer can then test that explanation against the approved standard.

Experienced workers do not necessarily need less training. They often need less explanation and more demanding practice.

Use one scenario at three levels

Differentiation does not require three separate courses. A good trainer can use one scenario and change the question.

Consider a worker preparing to enter an area where maintenance has just been completed on energized equipment.

Level	Trainer question	What it tests
BUILD	What hazards should you identify before work begins, and what controls must be confirmed?	Recognition of the basic hazard and required controls.
STRETCH	The normal isolation point is unavailable because another crew is using it. What information do you need before deciding whether work can proceed?	Application under a realistic variation and willingness to pause.
CHALLENGE	The permit is complete, the isolation appears correct, and production is pressuring the crew to start. One instrument reading does not match what you expected. What could explain the discrepancy, and what would you do next?	Diagnosis, assumption testing, escalation, and resistance to production pressure.

Everyone is working on the same safety objective. The cognitive demand changes.

This is one of the easiest ways for a safety manager to improve a mixed classroom without creating a complex adaptive-learning system.

The veteran problem is often a design

problem

Safety managers sometimes describe experienced employees as difficult learners. They talk through the class. They answer before the question is finished. They say they have heard it all before. They challenge the example because the real job is more complicated.

Some of that behaviour needs to be managed. But trainers should also ask whether the class is giving an experienced person anything worth thinking about.

If a skilled mechanic is required to spend an hour identifying basic hand-tool hazards every year, disengagement is predictable. If the same mechanic is asked to diagnose why a familiar maintenance task becomes unsafe when an interlock is defeated, access is restricted, and another contractor owns part of the isolation, the conversation changes.

The solution is not entertainment. It is relevance and cognitive demand.

Do not confuse familiarity with retained competence

The opposite mistake is equally dangerous. A trainer sees experienced workers moving quickly through basic material and assumes there is nothing to teach.

People forget. Equipment changes. Procedures drift. New controls are introduced. Familiarity can conceal weak habits. OSHA standards and interpretations repeatedly emphasize assessing whether workers have retained the necessary understanding and skill, with retraining required in some contexts when inadequacies appear or when workplace conditions change.

That is why the advanced route still needs verification. Let people demonstrate. Let them explain. Let them solve. If they cannot, move them back into the support they need without turning the process into a punishment.

The business case is better use of paid training time

Safety training has two economic dimensions. The first is the cost of the training itself. The second, much larger risk, is the cost of training that fails to change performance.

Every learner-hour has a real price. There is the worker's loaded labour cost, trainer time, coverage, overtime, travel, equipment downtime, and the opportunity cost of taking people away from production. A two-hour course for 100 employees is 200 paid learner-hours before any other cost is counted.

That investment is easy to justify when the time is being used to build or verify capability. It is harder to defend when half the room is repeating material they can already demonstrate while newer workers are receiving too little practice because the class must move at one average pace.

Differentiation creates a better allocation of training time. Novices can receive the additional support they need. Experienced employees can spend more of the same training window on advanced cases, changes, deviations, and practical verification. In some regulated contexts, prior training may also be credited after appropriate evaluation, but employers need to follow the specific standard rather than assume that experience automatically permits reduced training.

The loss side of the equation is larger

The financial case is not primarily about shaving 20 minutes from a refresher. It is about reducing the probability that a worker reaches a high-consequence situation without the right knowledge or judgment.

OSHA's current business-case materials cite more than \$1 billion per week in direct workers' compensation costs for disabling, non-fatal workplace injuries in the United States. OSHA also reminds employers that injury costs extend beyond compensation and medical expense into investigation, replacement training, damaged equipment, lost productivity, morale, and absenteeism. Its Safety Pays tool is designed to show how much additional sales revenue a company may need to generate to recover direct and indirect injury costs.

A training system that is better matched to capability therefore has two possible sources of value: it uses labour time more intelligently, and it increases the chance that training addresses the gaps that can produce expensive errors.

ILLUSTRATIVE TRAINING COST

If 80 employees attend a two-hour refresher at a loaded labour cost of \$45 per hour, the learner-time investment alone is \$7,200. The question is not whether to eliminate the training. It is whether all 160 learner-hours are being used at the right level of difficulty.

What safety managers can change without rebuilding the LMS

This approach can sound like personalized learning technology. It does not have to be.

A safety manager can make substantial changes with a pre-assessment, a few branching questions, and a different facilitation plan. Start with one recurring course where the audience routinely includes very different experience levels.

Before the session

Identify required content that everyone must receive. Build a short diagnostic around the critical knowledge and decisions.

Ask supervisors what has changed since the last training and where experienced workers are struggling.

During the session

Use common explanations for the standard, then vary assistance and scenario difficulty. Pair people intentionally rather than letting the veterans dominate.

Give novices more guided practice. Give experienced workers harder cases, fewer prompts, and questions that require justification.

After the session

Verify performance where the task requires it. Track which gaps appeared by experience level and revise the next session.

Use field observations, near misses, audit findings, and worker questions to determine whether the training level matched the job.

Seven mistakes to avoid

1. Using tenure as the placement test

A long-serving worker can have a serious knowledge gap. A recent hire can bring relevant experience from another employer. Diagnose the task-specific capability.

2. Letting experienced workers skip required content without checking the standard

Some requirements specify topics, hours, demonstrations, or conditions for crediting prior training. Adapt within the rules that apply.

3. Giving novices the hardest scenario because it feels realistic

Realism without sufficient foundation can become confusion. Build the mental model first, then increase variation.

4. Making the advanced route easier

Experienced workers should not get a free pass. They should get less scaffolding and more demanding decisions.

5. Turning pre-assessment into humiliation

The purpose is to guide instruction, not rank people publicly. Normalize movement between Build, Stretch, and Challenge.

6. Assuming a perfect quiz proves advanced capability

Recognition questions are easy to game through familiarity. Ask for explanation, diagnosis, demonstration, and application.

7. Never updating the challenge level

As workers improve, training should change. A scenario that was difficult two years ago may now be routine.

A 30-day experiment for one safety course

Choose one course that employees regularly describe as repetitive, or one where new workers struggle despite acceptable completion rates. Do not redesign the entire curriculum. Run a controlled test.

Week	Action	What to learn
1	Define the common safety outcome. Create five diagnostic questions or one short task that reveals prior knowledge.	Where are the real differences in capability?
2	Create one Build explanation, two Stretch variations, and one Challenge scenario using the same core hazard.	Can one topic support different levels without tripling development time?
3	Deliver the revised session. Record which prompts people need, which questions create discussion, and where confidence does not match performance.	Does the room stay more cognitively engaged?
4	Ask supervisors to observe one related behaviour or decision in the field. Review incidents, questions, and training feedback.	Did the differentiated approach reveal or close gaps the old refresher missed?

Measure more than satisfaction

Experienced workers may rate a harder course lower because it made them work. Novices may rate a highly supported course positively because it felt clear. Neither reaction tells you whether the training improved safe performance.

Track evidence that matches the purpose: diagnostic gaps before training, performance after training, errors during scenarios, amount of prompting required, field observations, repeat questions, supervisor follow-up, near-miss patterns, and whether people can explain the reason behind the control.

Over time, the best result is not three permanent learner tracks. It is evidence that more people are moving toward independent, reliable performance while training time becomes more relevant to where they are now.

A better standard for refresher training

Safety managers do not need to choose between a simple standardized program and an unmanageable individualized curriculum. There is a practical middle ground.

Keep the safety expectation consistent. Diagnose what people know. Give support where support improves learning. Remove support when it no longer serves a purpose. Increase the complexity of the decisions as capability grows. Verify that experience has produced competence rather than merely familiarity.

The result is a classroom where the new employee is not left behind and the veteran is not permitted to coast through material that never challenges their judgment.

The question for a better safety trainer is no longer, 'Did everyone receive the same training?' It is, 'Did everyone receive what they needed to reach the same safe-performance standard?'

One safety standard. Different amounts of support. Different levels of challenge. Better use of every learner-hour.