

IUOTA ANNUAL CONFERENCE · AUGUST 17-19, 2026 · TURNING STONE, VERONA NY

Skilled Trades to Technical Trainer

Adult learning for professional education & training in the trades

Greg Greiner

National Training Institute · electrical training ALLIANCE

The moment a great tradesperson is handed a room to teach and what it takes to make the leap

THE PROBLEM WE'RE HERE TO SOLVE

Your best hand isn't automatically your best teacher.

Chosen for what they can DO — then handed a room and left to figure out how to TEACH. Two very different skills.



Doing the work

Speed, precision, judgment — earned in the field.



Growing the worker

Getting it out of your head and into theirs.

IF YOU REMEMBER ONE THING

Teaching is a craft.

**Its no surprise that then teaching our
instructors how to do it is the highest-leverage
move in any trade.**

Everything else today is proof — I'll even test you on it. Three times.

From the field to the front of the room

01



How adults actually learn

The learning science that holds up.

02



The NTI model in action

Theory turned into instructor-grade training.

03



Your move: tradesperson → trainer

A practical toolkit and the business case.

who starts out a trainer

Almost every great instructor walked this road first — the craft comes years before the classroom.



So the leap into teaching comes LATE — deep skill, but little training in how to transfer it.

PART

1

HOW ADULTS ACTUALLY LEARN

Teach the adult, not the child

The research is clear — grown-ups don't learn the way kids do. Design for that, and everything gets easier.

NEXT · Make it real (stand up)

TRY THIS · ON YOUR FEET · ~2 MIN

Everyone — stand up.

- Stay standing if you came up by **DOING** the trade.
- Now sit if no one ever formally taught you **HOW** to teach it.
- **Look around. Skilled hands — rarely taught to teach. That's the gap.**
- *Still seated? Picture the best instructor you ever had. Hold onto one thing they did.*

Pedagogy vs. Andragogy

Andragogy — Malcolm Knowles' term for helping ADULTS learn — flips most of what we assume from teaching kids.



PEDAGOGY

Teaching children

- Teacher decides
- Learner depends
- Driven by grades
- Learn now, use later
- Little experience



ANDRAGOGY

Teaching adults

- Learner shares the wheel
- Self-directed
- Driven by mastery & pride
- Learn it, use it today
- Experience is the material

Six things every adult learner needs – Malcolm Knowles



A reason

Know WHY before they invest.



Ownership

Let them steer.



Their experience

They arrive full, not empty.



Readiness

Learn what the job demands now.



A problem to solve

Center on real tasks.

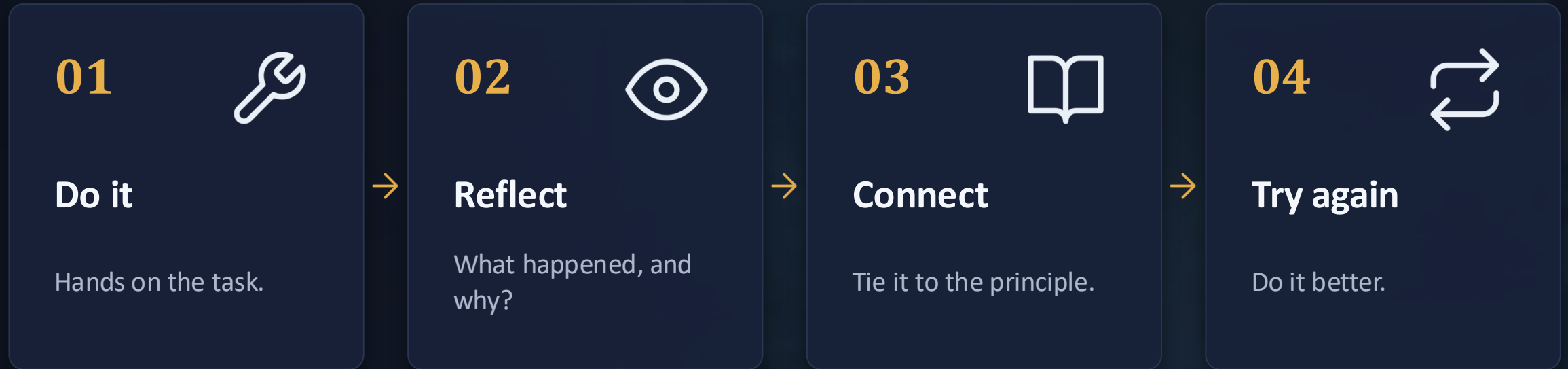


Internal drive

Pride and mastery beat carrots.

Learning is a loop, not a lecture

An experiential cycle is how anyone has ever gotten good with their hands.



 ...then around again — every pass builds skill and confidence.

We remember what we do

The more actively people work with material, the more survives. Move them UP the ladder.

The rule of thumb

Practice, discussion, and teaching others make skill stick — decades of research back it.

MORE ACTIVE · MORE RETAINED

Teach it to someone

Do the real task

Discuss & explain

Demonstration / watch

Read / listen (lecture)

To make training truly stick, which works better?

A

One solid, complete session

B

The same time, spread out over days

317

experiments — one clear pattern

Answer: Spread it out (spaced practice).

Cepeda, Pashler, Vul, Wixted & Rohrer, 2006, Psychological Bulletin — review of 317 experiments (184 studies).

Cramming looks good by end of day — then fades. Spacing is what's still there next month.

AIM HIGHER THAN 'KNOWS'

From knowing to mastering

Too much training stops at 'remember.' Real competence lives higher up — and that keeps crews safe.

Create adapt & teach it

Evaluate judge under pressure

Analyze diagnose the fault

Apply make the splice

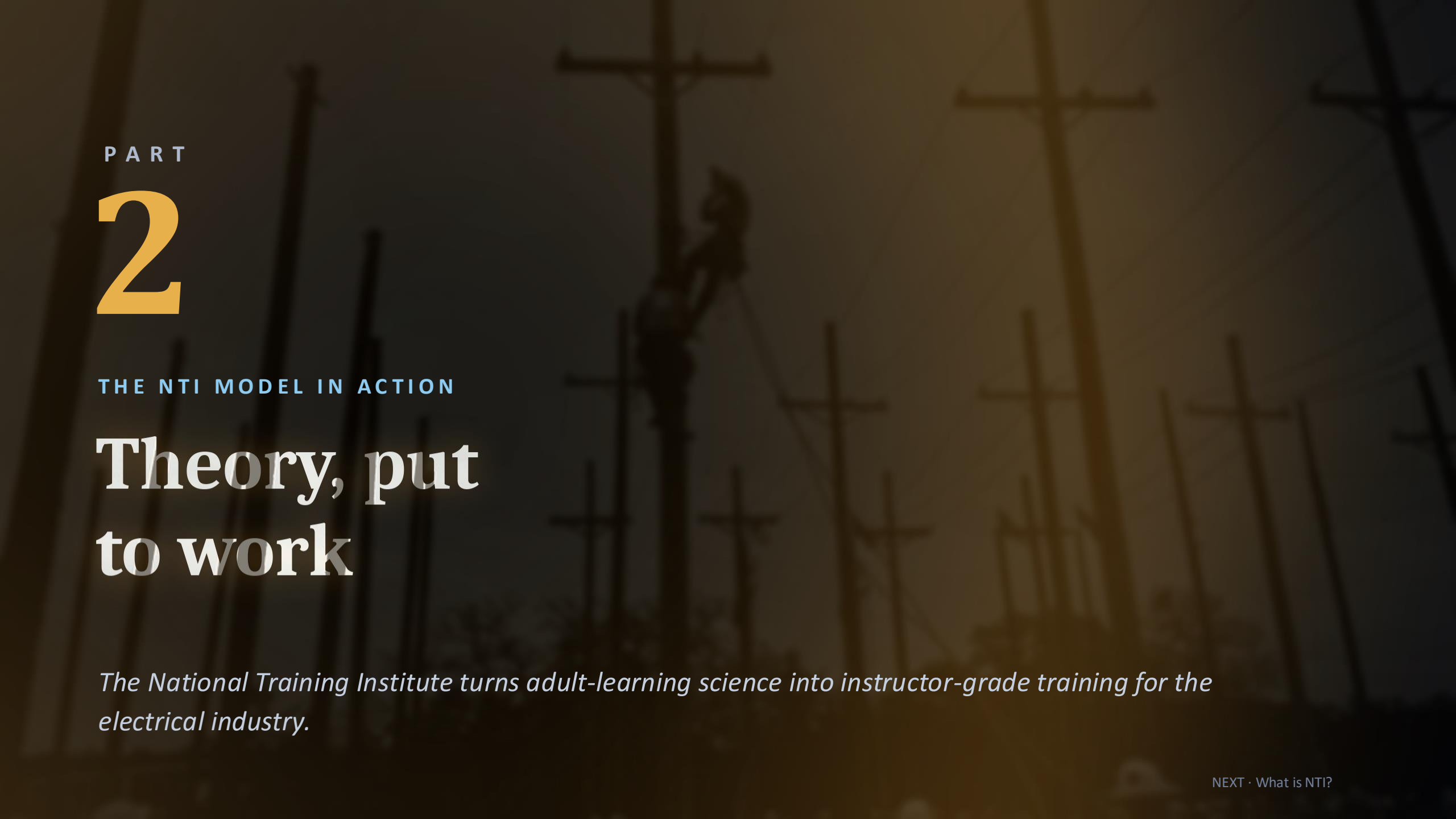
Understand why it works

Remember the code, the spec



Design past recall.

Ask them to apply, judge, and create — not just repeat. That's where a worker becomes trusted.

The background of the slide is a dark, sepia-toned photograph of an electrician working on a high-voltage power line tower. The electrician is silhouetted against a lighter sky, and the tower's structure is visible. The overall mood is industrial and professional.

PART

2

THE NTI MODEL IN ACTION

Theory, put to work

The National Training Institute turns adult-learning science into instructor-grade training for the electrical industry.

NEXT · What is NTI?

What is NTI?

The National Training Institute is the electrical training ALLIANCE's annual event — a partnership of the IBEW and NECA. Since 1990 it has trained the people who train the electrical workforce.

Begin	End
7/28/27	8/7/27
7/26/28	8/5/28
7/25/29	8/4/29

Each summer at Eastern Michigan University & Washtenaw CC



1990

Training instructors since



IBEW + NECA

the electrical training ALLIANCE



4-year

instructor development path

How NTI applies adult learning



Teaches HOW to teach

Method, not just subject matter.



Hands-on & problem-centered

Labs, live gear, real scenarios.



A structured progression

A multi-year instructor pathway.



The multiplier effect

Reach every apprentice they'll teach.

The impact of training the trainers

1 → many

Each instructor reaches cohort after cohort

One standard

A common quality bar across locals

Safer

More competent crews, fewer incidents



The real return isn't a number — it's a workforce.

Better instructors build more capable, safer, more confident tradespeople — quality that compounds for years.

Your apprentice wants it to stick. Better to...

A

Read the manual again

B

Close it and test themselves

84%

reach for the weaker method — re-reading

Answer: Test themselves (retrieval practice).

Karpicke, Butler & Roediger, 2009, Memory — 84% re-read, ~1% self-test first. Retrieval beats re-reading: Roediger & Karpicke, 2006.

We default to the weaker method. Great instructors make people retrieve, not just review.

PART

3

YOUR MOVE

From tradesperson to trainer

You don't need a PhD in education. You need a handful of habits — and the decision to treat teaching as a craft.

THE SHIFT

What changes at the front of the room

Becoming a trainer is a new job description. Four shifts do most of the work.

FROM

Do the work

→ **Develop the worker**

FROM

Have the answer

→ **Ask the right question**

FROM

Value speed & output

→ **Value clarity & transfer**

FROM

Get it right

→ **Help them get it right — and why**

True or false: people learn better when you match teaching to their 'learning style' — visual, auditory, hands-on.



True



False

93%

of teachers believe it — the evidence doesn't

Answer: False — no reliable evidence it helps.

Dekker et al., 2012, Frontiers in Psychology (93% UK / 96% NL); Pashler et al., 2008 — no adequate evidence.

The myth is teaching to a 'style,' not to the task. Even great instructors were taught it — that's why we retrain them.

USE THESE MONDAY MORNING

The trainer's toolkit



Lead with why

Open with why it matters.



Show, then do

Demonstrate, then hand it over.



Chunk it

Small steps beat the firehose.



Mine their experience

Ask before you tell.



Make it safe to fail

Fail in training, not the field.



Teach-back

If they teach it, they own it.

Developing trainers is a strategy

Trainer development looks like overhead. It behaves like an investment.

The payoff compounds.

One great trainer lifts every apprentice they touch — for the rest of their careers.



Faster ramp to productivity

New hands billable sooner.



Fewer incidents & rework

The cheapest safety program.



Higher retention

People stay where they grow.



Consistency that scales

Knowledge doesn't walk out the door.

Key takeaways

01 Teach the adult, not the child. Self-directed, experienced, problem-focused.

02 Experience is the curriculum. Build on what they already know.

03 Learning is doing. Practice and teach-back beat lecture.

04 Developing trainers is a strategy. An investment, not overhead.

05 Teaching is a craft. Become the trainer you'd have wanted.

One last question.

- That instructor you pictured earlier — hands up if what made them great is in today's toolkit.
- **You already know great**
- The gap isn't knowing
- *Then pick the ONE thing you'll focus on this week.*
- That's the whole game

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LET'S BUILD GREAT TRAINERS

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