From Evidence to Classroom Practice

Teacher Training for Supporting Autistic Students in Inclusive Classrooms

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Why this matters now

1 in 31

8-year-olds identified with autism across 16 U.S. monitoring sites in 2022, up from 1 in 36 two years earlier

Shaw et al., 2025 (CDC ADDM Network)

~3 : 1

boy-to-girl ratio when whole populations are screened, not the 4 : 1 often reported. Girls who mask are more likely to be missed

Loomes et al., 2017; Hull et al., 2017

< 1 in 5

school staff trained in video modeling or peer-mediated instruction, though 98.8% had heard of reinforcement

Locke et al., 2022 (86 elementary staff)

The real question: not whether teachers need more information about autism, but what kind of preparation helps them choose and use the right supports.

Three questions, one narrative review

1. Which classroom practices have real evidence behind them?
2. Which kinds of teacher training change what teachers know, how confident they feel, or what they actually do?
3. What should effective training include once autistic perspectives and the limits of the evidence are taken seriously?

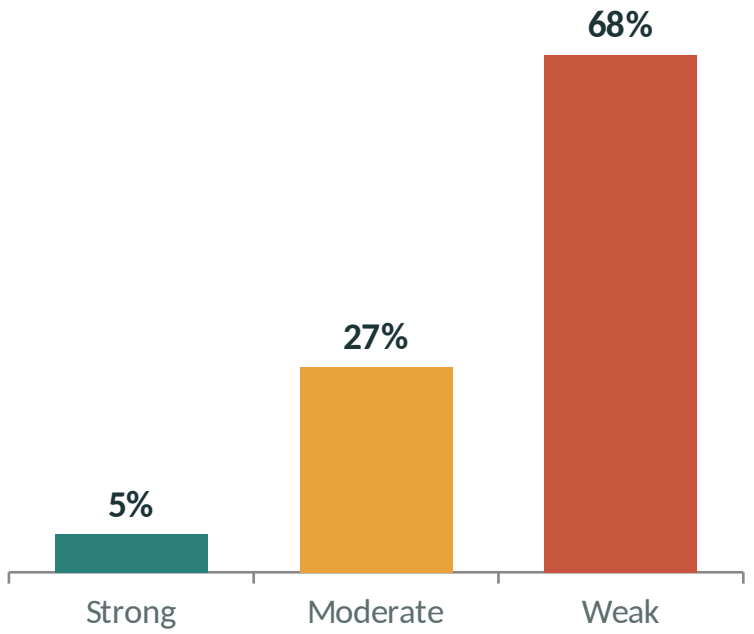
How sources were found

- Google Scholar, PubMed, and ERIC, plus hand-checked reference lists
- Priority on peer-reviewed reviews and studies since 2015
- Narrative, not systematic: no PRISMA screening or pooled estimate
- Identity-first language (“autistic student”); no functioning labels

RQ1: Real evidence, but uneven

Peer-mediated instruction Watkins et al., 2015; Chang & Locke, 2016	Consistent gains
Self-management Scheibel et al., 2024 (18 studies, 53 students)	Generally positive
Video modeling Abd Aziz et al., 2026 (20 studies)	Promising for routine skills
Visual supports Steinbrenner et al., 2020	On NCAEP list; small studies
Structured teaching (TEACCH) Zhu et al., 2025 (10 controlled trials)	Mixed: motor skills only
Social narratives Qi et al., 2018 (22 studies)	Weak overall

Social Stories: evidence quality across 22 studies



Source: Qi et al., 2018. Pooled analysis suggested some benefit, but the set does not meet the What Works Clearinghouse bar.

Ratings come from the newer review named in each row, not the NCAEP list, and are not directly comparable.

RQ2: Training changes practice when it’s hands-on

What worked most reliably across 118 practitioner-training studies (Brock et al., 2017)

Explain

A clear description of the practice

Demonstrate

Show it being done, live or on video

Give feedback

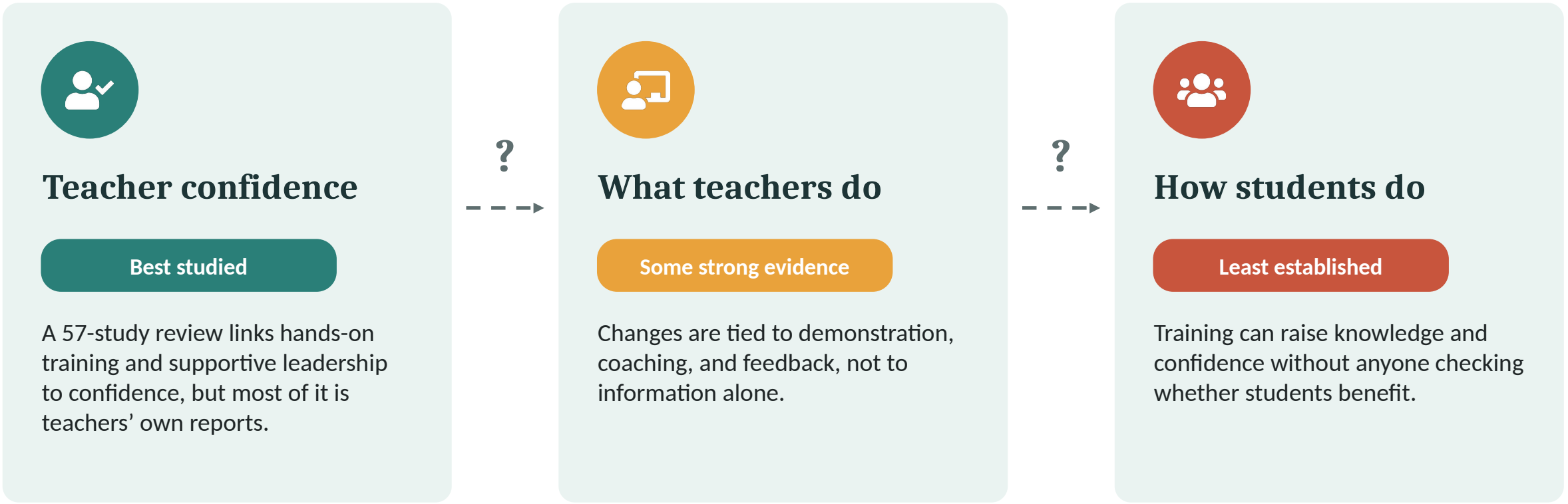
On the teacher’s own performance; the most important part

60

elementary schools in a randomized trial.
Schools using the National Professional Development Center (NPDC) model improved more in program quality than schools with usual services. It shows hands-on training changes what staff do, not yet that every program improves student results.

Sources: Brock et al., 2017; Kretlow & Bartholomew, 2010; Odom et al., 2013; Sam et al., 2020

Confidence is not the same as practice



A gain in one doesn't guarantee a gain in the next. Good training aims at all three.

Sources: Petersson-Bloom & Hansson, 2025; Johnson et al., 2021; Holmqvist, 2023; Brock et al., 2017

Inclusion: the placement isn’t the intervention

Strategies inside inclusive classrooms

Moderate to large effects on social communication, play, and classroom behavior (ages 3–21)

Watkins et al., 2019

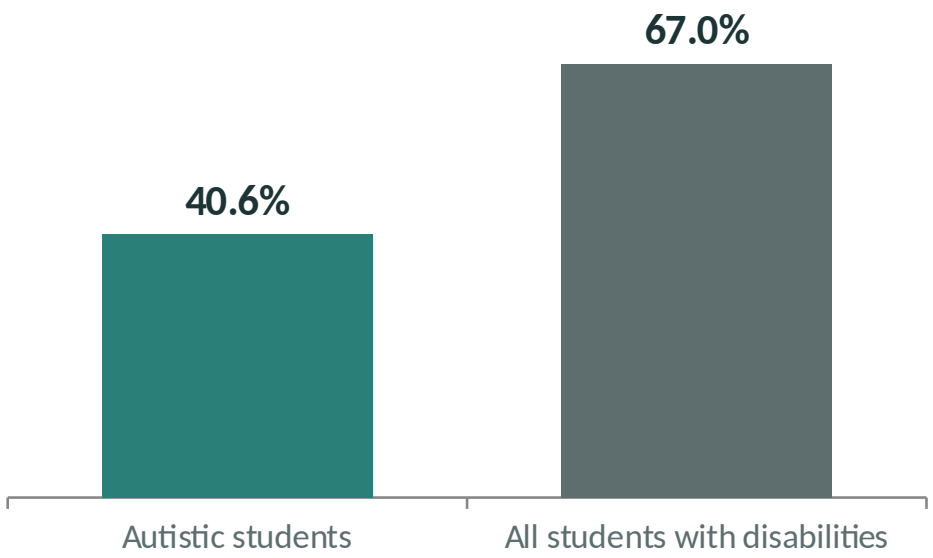
The placement itself

No reliable average effect on academic results or social-emotional wellbeing across OECD countries

Dalgaard et al., 2022 (Campbell review)

What happens inside the classroom is what varies. Teacher preparation is a likely factor, but neither review tested it.

Share spending 80%+ of the day in general classes



Another 34.7% of autistic students spend less than 40% of the day in general classes, and 5.8% attend separate schools.

Source: NCES Digest 2023, Table 204.60 (fall 2022, IDEA Part B)

RQ3: Ask what counts as success



The cost of masking

Hiding autistic traits to fit in:

- Forcing eye contact
- Planning conversations in advance
- Holding still instead of stimming
- Hiding sensory distress

More masking is linked to worse mental health, and autistic adults describe it as exhausting even when it works socially.

Hull et al., 2017; Cage & Troxell-Whitman, 2019

235 autistic adults rated which intervention goals were acceptable (Baiden et al., 2025)

Rated far more acceptable

- Quality of life
- Safety
- Autistic ways of interacting

Rated less acceptable

- Making autistic children seem more like non-autistic children

For training: teach each technique with the reasoning behind it, and check whether the people affected find it acceptable.

One classroom: the sound nobody else heard

Fifth-grade teacher, Hawk Ridge Elementary

She had no formal autism training and learned by experience. A hose outside her room made a high-pitched sound that upset one autistic student every time it came on. Everyone else had learned to tune it out, so it took her a long time to find the cause.

H. Northrup, personal communication, Nov. 19, 2025. One interview is an illustration, not evidence of how common this is.

What a trained teacher could do on Monday morning

Walk the room for sensory load

Sounds, lighting, textures, transitions

Post a visual schedule

Or a “first-then” board

Set up self-management

A checklist or timer the student tracks

Structure a peer buddy

Classmates taught how to invite a student in

Offer several ways to show learning

Speaking, writing, or building (UDL)

A training model that answers the objections

The strongest objection is opportunity cost. Generic, information-heavy training can produce a compliance record without changing a single classroom.

Content

Autism across support needs, sensory load, responding to distress, the best-supported practices, and autistic voices

Delivery

A short foundation, then classroom coaching, demonstration, and feedback where the teacher works

Scope

Include teaching assistants. Teachers can train them directly and improve fidelity (Sam et al., 2023)

Cost

Free modules cover content; release time and coaching still cost money. Fund it as ongoing support

Free starting point: AFIRM modules from UNC-Chapel Hill's Frank Porter Graham Institute turn NCAEP practices into step-by-step training, with a separate set for teaching assistants.

Limitations

Narrative review

Sources reflect the author’s judgment; no PRISMA process or pooled estimate

Small studies

Much of the practice evidence tracks a few students at a time

Publication bias

Positive results are more likely to be published

Narrow geography

Mostly U.S., U.K., and Australia; findings may not transfer

Self-report

Confidence is measured by teachers’ own reports; outcome measures vary

Few null results found

A limit of the literature and this search, not proof they don’t exist

What the evidence supports

1. Classroom strategies have real but uneven evidence. Teachers need to know which practice fits which goal.
2. Training changes practice when it adds demonstration, coaching, and feedback, not information alone.
3. Inclusion works through the quality of support, judged by outcomes autistic students value.

Every teacher who supports autistic students should have access to evidence-informed preparation and ongoing implementation support.

Questions?

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Disclosure: the author founded Neuro-Nurture and wrote a children's book about autism and sensory differences. Neither is cited as evidence in this review.

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