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The Missing Piece in Math Reform: Identifying and Supporting Students with Dyscalculia

Answers to Common Questions

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1. What is dyscalculia?

Dyscalculia is a neurological learning disability that makes numbers and math difficult—it's the math equivalent of dyslexia and affects a similar share of students (3-8% of school-age children). Students with dyscalculia struggle with core number skills, like judging which of two quantities is larger, recalling basic math facts, and understanding place value, in a way that is severe, persists over time, and does not resolve with ordinary instruction. Clinically, it is confirmed only after ruling out other explanations: inadequate instruction, language barriers, intellectual disability, or sensory difficulty. It commonly co-occurs with dyslexia and ADHD (in an estimated 20-60% of cases), which can make it harder to recognize on its own.

2. Why should we be paying attention to dyscalculia now?

Even though dyscalculia affects around the same number of students as dyslexia, there is much less research about it. Published research contains over 40 times as many studies on dyslexia's prevalence. Most schools don't have the same supports available for dyscalculia as they have for dyslexia, such as routine screening, specialist roles, teacher-preparation requirements, or clear referral paths. Left unaddressed, it can contribute to more math anxiety and drive further declines in math achievement. Adults with low numeracy are more than twice as likely to be unemployed as their more numerate peers, face higher rates of depression, and earn less. Since 2022, many states have begun updating math policy, screening requirements, and teacher preparation, giving us a window of opportunity to build systems to address dyscalculia.

3. What's missing in schools today?

Most teachers don't recognize dyscalculia. Only about 1 in 5 report feeling familiar with it, and general classroom experience does not predict awareness the way it does for dyslexia. Without that knowledge, disability is often misread as low effort.

Schools often flag a struggling student for intervention without ever finding out the root cause. A below-grade-level test score doesn't reveal which math processes are affected or whether the difficulty is temporary or a disability, so students get generic support that doesn't match their actual needs.

Identification usually happens only after a student has struggled for a long time. Older, IQ-based identification methods require waiting for students to experience significant failure first. Response to Intervention (RTI), the newer alternative permitted under federal law, doesn't solve this either; data from one point in time is just as unreliable on its own. Reliable identification requires confirming results across multiple stages of learning and development, not acting on one test score.

Equity data is largely missing. Students from low-income backgrounds and English learners are overrepresented among low math performers, but researchers still cannot say how dyscalculia identification gaps break down by race and ethnicity, because most systems don't collect or report that data at all.

4. What would a clear, actionable identification pathway look like?

Universal screening in early grades would flag students for further diagnostic testing. Flagged students would be monitored over time to see whether their difficulty is persistent and to rule out other explanations (language barriers, absenteeism, intellectual disability, inadequate instruction) before a dyscalculia identification is finalized."

5. What does effective intervention look like?

Interventions are most effective when they're targeted toward the specific skills that students are struggling with, and when students get dedicated time with trained math specialists. Students whose dyscalculia co-occurs with a reading disorder or math anxiety respond less well to standard interventions, and anxiety that goes unaddressed deepens avoidance, which limits the time on task that any intervention needs to work. Effective support addresses both the emotional and academic dimensions.

6. Where do states stand on dyscalculia today?

Our scan of recent math policies and bills across all 50 states found no consensus on how to define, identify, or support dyscalculia. A handful of states have named dyscalculia in recent bills without requiring screening or diagnosis. A larger group recommends math screening for students considered at risk but establishes no dyscalculia-specific pathway, leaving adoption to district discretion. Others have established or attempted to establish universal screening mandates within a grade band, often K-3 or K-6. The remaining states rely entirely on the federal IDEA referral process.

7. What can states and districts do now?

States can:

- **Require early math screening paired with a mandatory response plan,** so that a flagged result automatically triggers a defined assessment and intervention response. This is the model states already use for reading.
- **Set state guidance for what a full evaluation must include**, so responses are consistently applied regardless of which district the student happens to live in.
- **Build dyscalculia into teacher and school psychologist licensure.** Awareness of dyscalculia does not accumulate through general classroom experience the way awareness of dyslexia does, so it has to be taught deliberately. Licensure standards for elementary and special education teachers and school psychologists should require demonstrated competency in recognizing and responding to math learning disabilities.
- **Require reporting on who is screened, evaluated, and served,** disaggregated by school poverty level, race and ethnicity, English learner status, and gender.

Districts can:

- **Run an infrastructure audit:** How many students currently receive math-disability-specific support, and does that number come close to what prevalence estimates predict? A large gap indicates there are likely students who aren't being identified that need additional screening and support.
- **See how math interventions compare with reading interventions.** In most districts, more resources are dedicated to reading than to math.
- **Build a clear, school-wide referral protocol that begins with the classroom teacher.** A teacher's concern should reliably turn into an

evaluation, and an evaluation should reliably turn into the right kind of support.

- **Pair any new screening requirement with real investment in staff and time.** An unfunded mandate just means more students get identified without getting the help they need.

Companion to: Kurz, Alexander, and Shauna Campbell. "The Missing Piece in Math Reform: Identifying and Supporting Students with Dyscalculia." Center on Reinventing Public Education, Arizona State University, 2026.