



What is Evidence-Based Math Instruction?

- Evidence-based math instruction focuses on developing students' conceptual understanding, reasoning, and procedural skills and fluency, along with their capacity to solve everyday problems. Student success depends upon opportunities to engage in problem solving, practice, and the discussion of strategies, methods, and solutions. It also depends upon developing a strong sense of oneself as someone who can do math.
- For far too many students, math is about mimicking what the teacher does, without learning the meaning of what they are doing or the flexibility to use it. Teachers are asking for resources to support student engagement in understanding math and applying it.
- There is a difference between knowing how to do math and understanding math. We see this in our test scores. Students can recite basic facts or perform algorithms, but they are not sure of when or how to use that information to solve problems.
- Learning how to do math and learning how to read are not the same. We know this from experience and from educational data and research.
- “Science of Reading” and “Science of Math” are not the same.
 - “Science of Math” is a self-branded group, comprised primarily of special education researchers.
 - A balanced approach to math instruction includes a number of evidence-based practices that are appropriate for different students in different situations. “Science of Math” promotes a one-size-fits-all approach. While this approach, referred to as “explicit instruction,” is a useful tool for teachers, suggesting that it should be the only tool available is not appropriate.
 - “Science of Math” is not the primarily endorsed evidence-based approach to effective math teaching practices.



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For More Information

Lambert, R., & Tan, P. (2019). Does disability matter in mathematics educational research? A critical comparison of research on students with and without disabilities. *Mathematics Education Research Journal*, 32(1), 5–35. <https://doi.org/10.1007/s13394-019-00299-6>

National Council of Teachers of Mathematics (NCTM). (n.d.). Procedural fluency in mathematics. <https://www.nctm.org/Standards-and-Positions/Position-Statements/Procedural-Fluency-in-Mathematics/>

National Council of Teachers of Mathematics (NCTM), & Council for Exceptional Children (CEC). (2024). NCTM and CEC position statement on teaching mathematics to students with disabilities. Council for Exceptional Children. <https://exceptionalchildren.org/sites/default/files/2024-12/NCTM%20CEC%20Disabilities%20Pos%20Statement%20v1.pdf>

