



## ***Using Peer-Assisted Instruction to Teach Math***

### **What is the evidence base?**

- This is a research-based practice for **students with disabilities** based on one methodologically sound group experimental study with random assignment across 92 students with disabilities and one methodologically sound single-subject study across eight students with disabilities.
- This is a research-based practice for **students with learning disabilities** based on one methodologically sound group experimental study with random assignment across 68 students with learning disabilities.

### **Where is the best place to find out how to do this practice?**

The best place to find out how to implement using peer-assisted instruction to teach math is through the following research to practice lesson plan starter:

- [Using Peer-Assisted Instruction to Teach Math Computation \(Calhoun & Fuchs, 2003\)](#)

### **With whom was it Implemented?**

- Students with:
  - **Learning Disabilities (1 study, n=68)**
  - Emotional/Behavioral Disorder (2 studies, n=12)
  - Intellectual Disability (1 study, n=12)
  - Other Health Impairment (1 study, n=8)
- Grade Level
  - 9<sup>th</sup> grade (n=57)
  - 10<sup>th</sup> grade (n=15)
  - 11<sup>th</sup> grade (n=16)
  - 12<sup>th</sup> grade (n=4)
  - Other (age 13-16; n=8)
- Male (n=68), Female (n=32)
- Ethnicity
  - Caucasian (n=45)
  - African-American (n=47)
  - Not specified (n=8)

### **What is the practice?**

Peer-assisted instruction for math content has been defined as “students in the same class being paired according to skill level to allow individualized practice on deficit math skills” (Calhoon & Fuchs, 2003, p. 236). Peer-assisted instruction involves a tutor modeling a series of verbal statements or questions. The tutee then uses those to as a guide through concrete knowledge of the mathematical skill. The tutee responds to each question or statement by writing down or verbalizing the correct answer. If the tutee is correct, the tutor circles the correct answer, and if the tutee is incorrect or does not know the answer, the tutor provides as much help as necessary.

In the studies used to establish the evidence base for peer-assisted instruction to teach math, peer-assisted instruction included using:

- Scripted lessons that incorporated a teacher presentation, student practice of computational math skills (e.g. addition, subtraction, multiplication, and division), and teacher feedback on how the tutors performed (Calhoon & Fuchs, 2003).
- Tutor training that included procedures for problem presentation, instructions, error correction, and social reinforcement taught to students through modeling and role-play, followed by student practice during tutoring sessions, and teacher feedback on how tutors performed (Franca, Kerr, Reitz, & Lambert, 1990).

### **Where has it been implemented?**

- General education classroom (1 study)
- Self-contained Classroom (1 study)

### **How does this practice relate to Common Core Standards?**

- Create equations and inequalities in one variable and use them to solve problems.  
[CCSS.MATH.CONTENT.HSA.CED.A.1](#)

### **References used to establish this evidence base:**

Calhoon, M. B., & Fuchs, L. S. (2003). The effects of peer-assisted learning strategies and curriculum-based measurement on the mathematics performance of secondary students with disabilities. *Remedial and Special Education, 24*, 235-245.

Franca, V. M., Kerr, M. M., Reitz, A. L., & Lambert, D. (1990). Peer tutoring among behaviorally disordered students: Academic and social benefits to tutor and tutee. *Education and Treatment of Children, 13*, 109-128.

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