



What Teacher Supports are Necessary to Scale Up PALS-Reading? A Multi-Site Randomized Control Trial

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PROJECT GOAL

- To determine what type and amount of teacher supports are necessary to scale up best evidence practices in reading (e.g., Peer-Assisted Learning Strategies, or PALS).

RESEARCH QUESTIONS

- What levels of teacher support are necessary to successfully implement and sustain PALS?
- How do levels of support affect teachers' and students' fidelity of PALS implementation and students' reading?
- What are the relations between teacher and student treatment fidelity and students' reading performance?
- What teacher characteristics, skills, and views of school climate influence student's reading?
- What student characteristics influence their reading performance?
- What is the cost-benefit (in dollars) associated with the successful scaling up of PALS?

BRIEF DESCRIPTION OF PALS-READING

- Classwide peer-tutoring program
- Stronger readers paired with weaker readers to practice:
 - Phonological awareness, decoding, and fluency activities in kindergarten and first grade
 - Fluency and reading comprehension in grades 2-6 and high school
- 15 years of experimental research
 - In Title I and non-Title I schools in urban and suburban school districts
 - With high, average, and low achievers
 - With mainstreamed special-needs students
 - With English Language Learners
- "Best practice" status from U.S. Department of Education and included in it's National Diffusion Network

TIMELINE

Year	Implementation/Student Effects	Sustainability
1	Kindergarten (K) cohort #1	NA
2	K cohort #2	K cohort #1
3	4th-grade cohort #1	K cohorts #1+2
4	4th-grade cohort #2	4th-grade cohort #1, K cohorts 1+2
5	NA	4th-grade cohorts 1+2, K cohorts 1+2

NOTE: Case studies are conducted in Yr 5; cost analyses in Yrs 1-5

YEAR 1: SETTINGS & PARTICIPANTS

- Sites
 - 3 states (TN, TX, MN)
- Schools
 - 46 schools in urban, suburban, and rural areas
- Teachers
 - 145 kindergarten teachers
- Students
 - Approximately 1800 kindergartners participate in PALS
 - Subsets of low-, average-, and high-performing readers targeted for date collection

YEAR 1 STUDY GROUPS: LEVELS OF TEACHER SUPPORT

- Control
 - Teachers implement regular reading instruction without PALS
- PALS Workshop
 - Teachers trained to implement PALS in their classrooms
- PALS Workshop + 2 Boosters
 - Reviewed procedures, problem-solved, shared ideas
- PALS Workshop + 2 Boosters + Mentor
 - Trained graduate assistant provided weekly technical assistance and feedback

YEAR 1: DESIGN

Site/Teachers	Control	K-PALS 1-day Workshop	K-PALS 1-day Workshop + Booster	K-PALS 1-day Workshop + Booster + Mentor
TN n = 52	13	13	13	13
MN n = 42	8	10	12	12
TX n = 51	13	13	13	12

YEAR 1: FIDELITY PROCEDURES

- Conducted in January and March
- Detailed checklist of teacher and student PALS behaviors
- PALS lessons observed in each classroom
- At each site, inter-observer agreement of at least .85 established

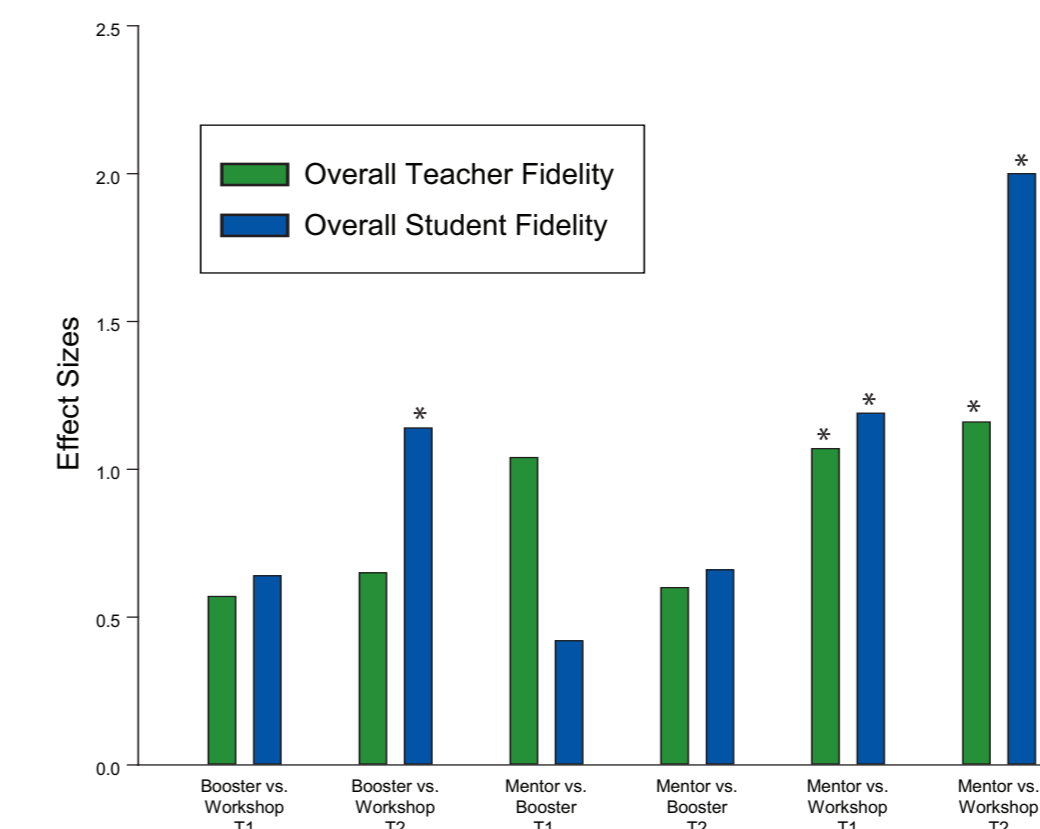
NASHVILLE SITE

- We focus on findings from the Nashville site for two reasons:
 - Findings from the 3 sites include many group (levels of teacher support) x site interactions among our many reading measures.
 - Experimental control many have been somewhat stronger in Nashville (for reasons addressed in Year 2).

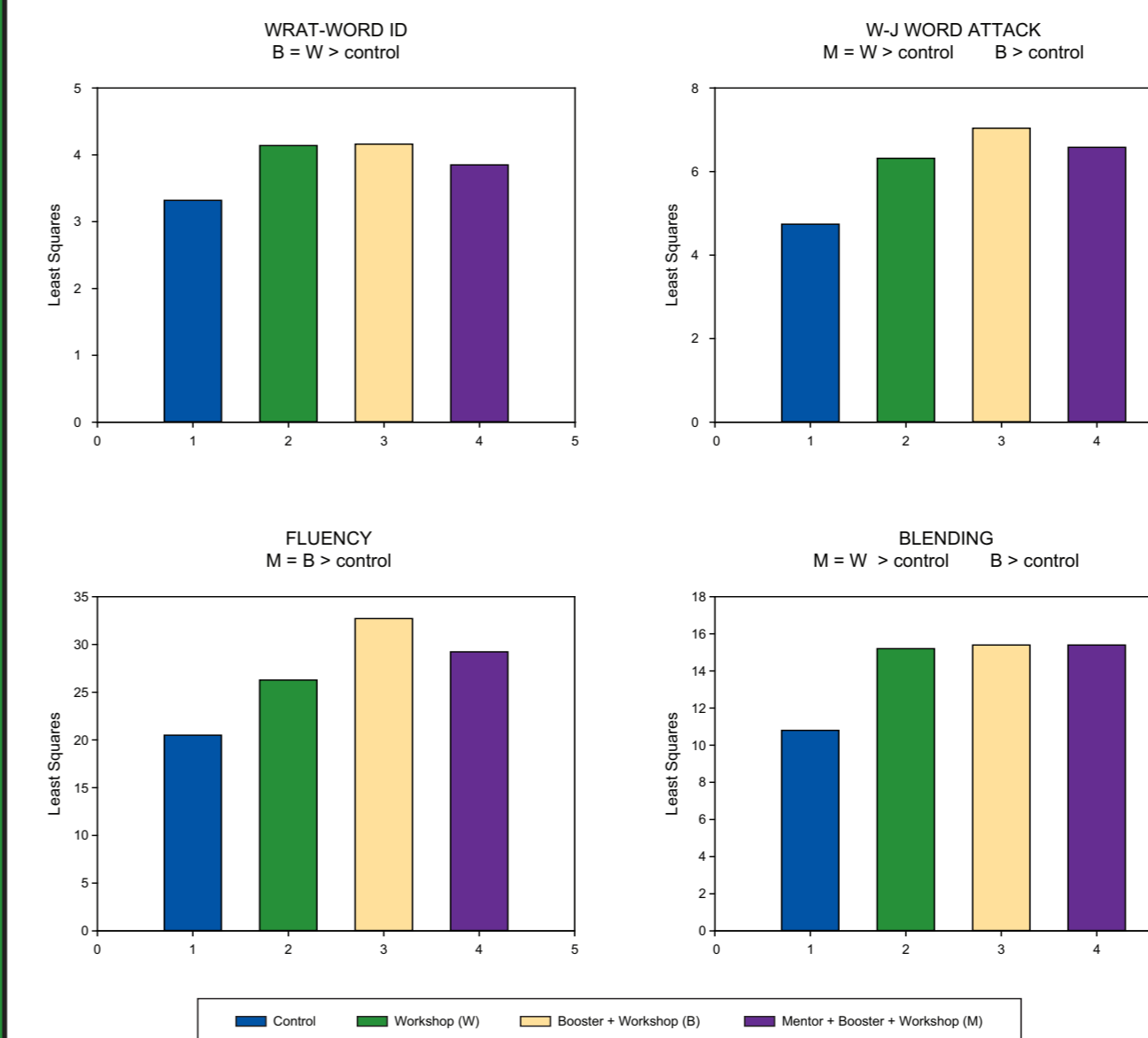
STUDENT DEMOGRAPHICS IN NASHVILLE

- Race: Among controls, 38%, 36%, 15%, and 8% were Black (B), White (W), Hispanic (H), and Asian (A). Workshop only, 45%, 31%, 19%, and 1% were B, W, H, and A, respectively. Workshop + Booster, 42%, 34%, 17%, and 4%. Workshop + Booster + Mentor, 45%, 38%, 13%, and 2%.
- Gender: Controls (C), Workshop (W), Workshop + Booster (W+B), and Workshop + Booster + Mentor (W+B+M) were 48%, 45%, 42%, and 48% female.
- SES: For C, W, W+B, and W+B+M, 66%, 61%, 56%, and 68% were on free/reduced lunch.
- IEPs: 3%, 4%, 4%, and 6%.

EFFECT SIZES BETWEEN LEVELS OF TEACHER SUPPORT FOR TEACHER AND STUDENT FIDELITY OF TREATMENT IMPLEMENTATION AT TIME 1 (T1) AND TIME 2 (T2)



KINDERGARTNERS' READING PERFORMANCE BY LEVEL OF TEACHER SUPPORT



DISCUSSION/CONCLUSIONS: FIDELITY

- Sizable effect sizes (ESs) show that B (Booster) > W (Workshop), Mentor (M) > W, and M > B for teachers and students at Time 1 and Time 2. Thus, stronger levels of support produce stronger ESs.
- Student fidelity was stronger at Time 2 than Time 1 in B classes vs. W classes and M classes vs. W classes. Thus, importance of stronger support levels become more apparent over time.

DISCUSSION/CONCLUSIONS: READING

- Students of teachers in W alone made gains equal to those of students of teachers in W+B+M, beating Controls on blending tasks, and equaling W+B students' performance and beating Controls on word identification.
- W+B students outperformed Controls on blending; equaled W students while beating Controls on word id; and equaled W+B+M students' while beating Controls on word fluency.
- W+B+M students were not superior to both W or W+B students on any reading measure.
- Hence, W was surprisingly strong; W+B+M surprisingly weak.



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