

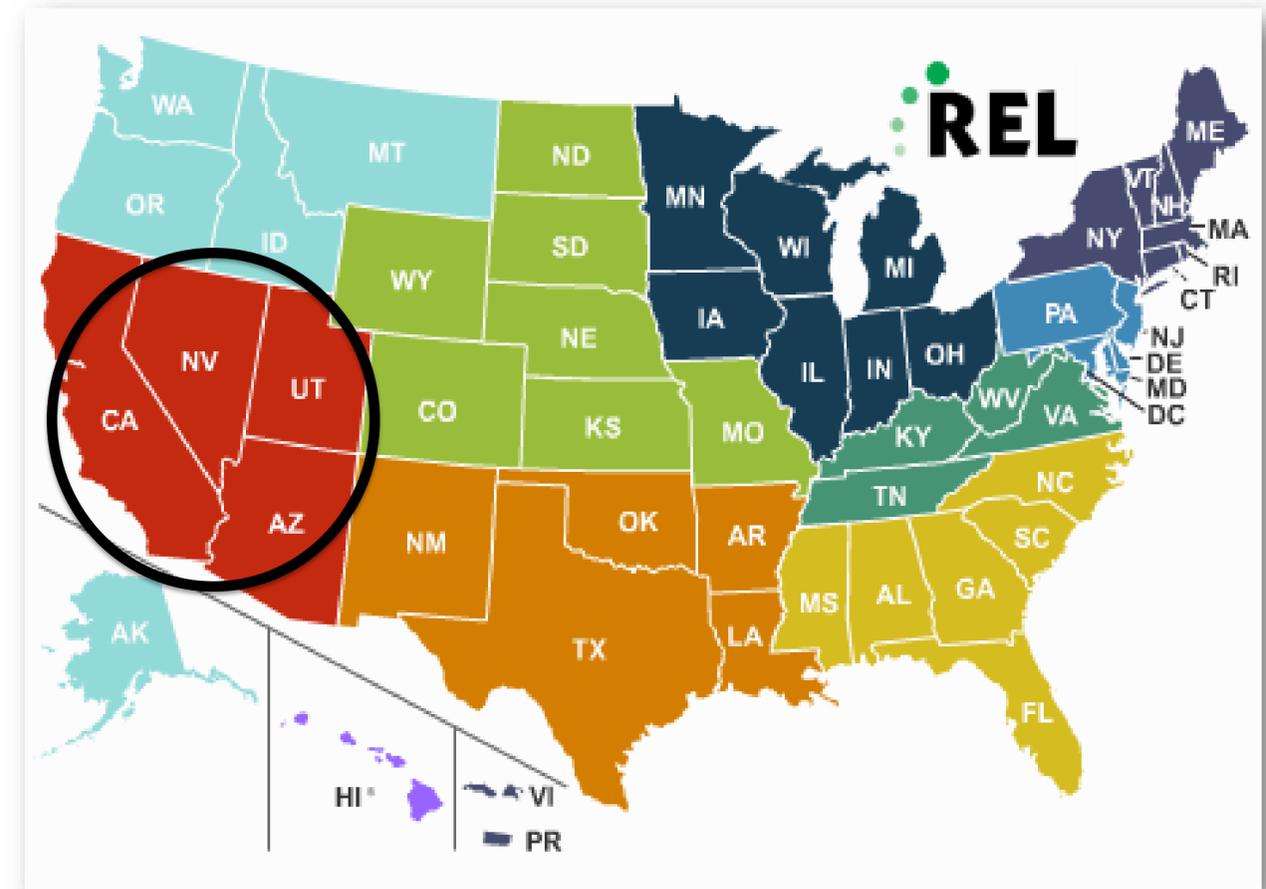


High-Quality Tutoring to Accelerate Learning: Research Evidence and Best Practices

September 22, 2021

Regional Educational Laboratory West

- Conduct applied research
- Provide technical support around data collection, evidence use, and research
- Facilitate dissemination of actionable research evidence



Series: High-Quality Tutoring to Accelerate Learning

Today: Research Evidence and Best Practices

October 14: Implementing and Improving Your Program

November 17: Deep Dive into Literacy and Mathematics

And a related webinar hosted by REL Northeast and Islands:

October 4: Using Data to Strengthen Your High-Dosage Tutoring Program: Lessons from a Rhode Island District

Today's Presenters



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Agenda

- Overview of Meta-Analysis on Tutoring and Implications
- A Case Study of High-Dosage 9th Grade Algebra Tutoring
- Panel: Implementation Considerations
- Audience Questions
- Closing and Survey

Goals

Participants will:

- Learn about the research on high-quality tutoring
- Explore critical questions to ask when assessing local conditions and planning for implementation of tutoring
- Hear examples of best practices in tutoring, as applied through one program and in practice in one district
- Have an opportunity to ask questions and receive resources to guide their own work

Outcomes of Meta-Analysis on Tutoring: Strengths and Characteristics of the Evidence

Kimberly Dadisman
J-PAL North America

Vincent Quan
J-PAL North America





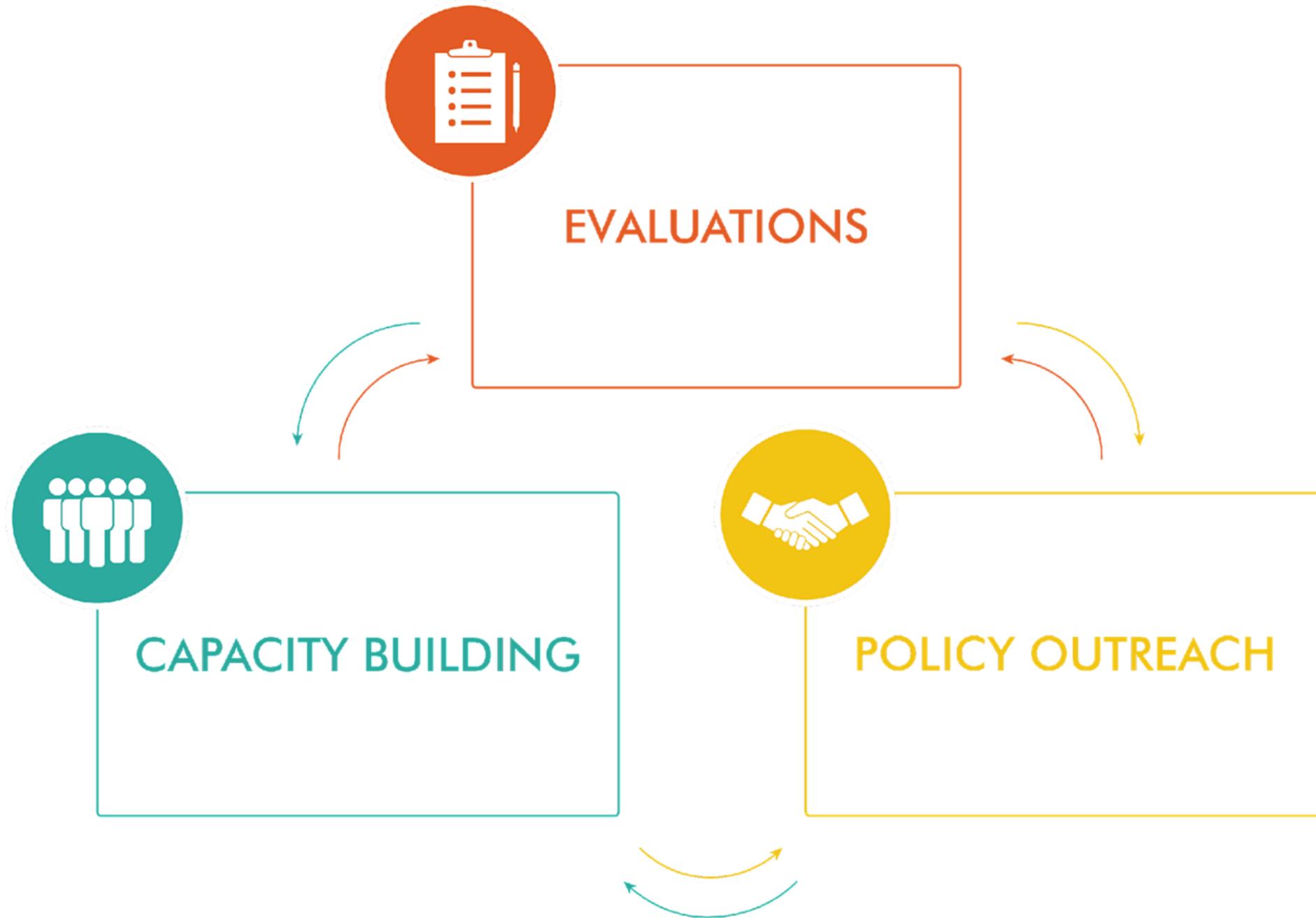
Tutoring as an Effective Strategy to Address COVID Unfinished Learning in K-12 Settings

Kimberly Dadisman

Vincent Quan



Our mission is to **reduce poverty** by ensuring that **policy is informed by scientific evidence**



Why Tutoring?

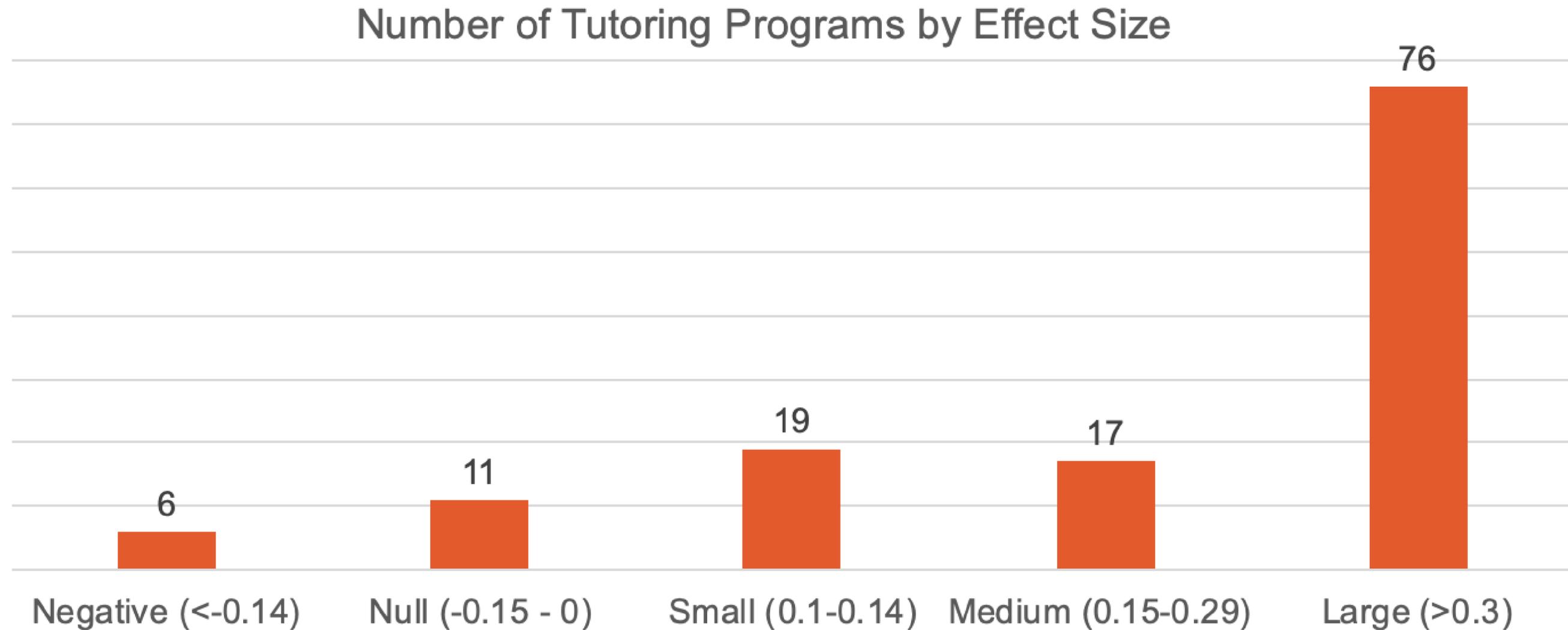
- Millions of US students are behind grade level
- Falling behind early impacts students into adulthood
- Students of color and students from low-income communities are more likely to fall behind and to attend under-resourced schools lacking sufficient student supports
- COVID-19 has exacerbated these issues, pushing students further behind and widening race- and income-based educational gaps



Technical Features of Meta-Analysis

- Analyzed **96 randomized evaluations**
- Studies were included if...
 - They had a non-tutoring control group
 - The evaluated tutoring program was implemented at preschool-secondary schools
 - The researchers included academic learning as an outcome variable
 - They were published after 1980 and presented necessary data to compute effect sizes
- Studies were excluded if...
 - The evaluation focused on peer and cross-age tutoring programs

The Results: Big Picture



2

Tutoring programs consistently led to **large improvements in learning outcomes** for students

Key Elements of Effective Tutoring

- Evidence identifies tutoring as one of the most impactful tools to improve student learning.
- Analyses identified key elements to consider:
 - Tutor type
 - Program delivery
 - Grade level / Subject combinations



What the Evidence Says: Tutors

Evidence points to **professional tutors**—tutors that are **trained, supervised, and paid**—as a highly effective tutor group

- 45 studies employed professional tutors, 19 studies employed certified teachers, 24 studies used volunteer tutors

What the Evidence Says: Program Delivery

Evidence suggests that tutoring is most effective when it occurs:

- At school **during the school day**
 - 78 studies included programs offered during the school day; 43 were led by professional tutors
- **Three times a week** (or more for preschool – first graders)
 - 79 studies offered tutoring at least 3 days per week
- In **one-on-one** sessions for younger students, and in **small groups** for older students
 - 35 studies had a 1:1 tutor to student ratio for first grade students, compared to 4 studies of tutoring in grades 6–11

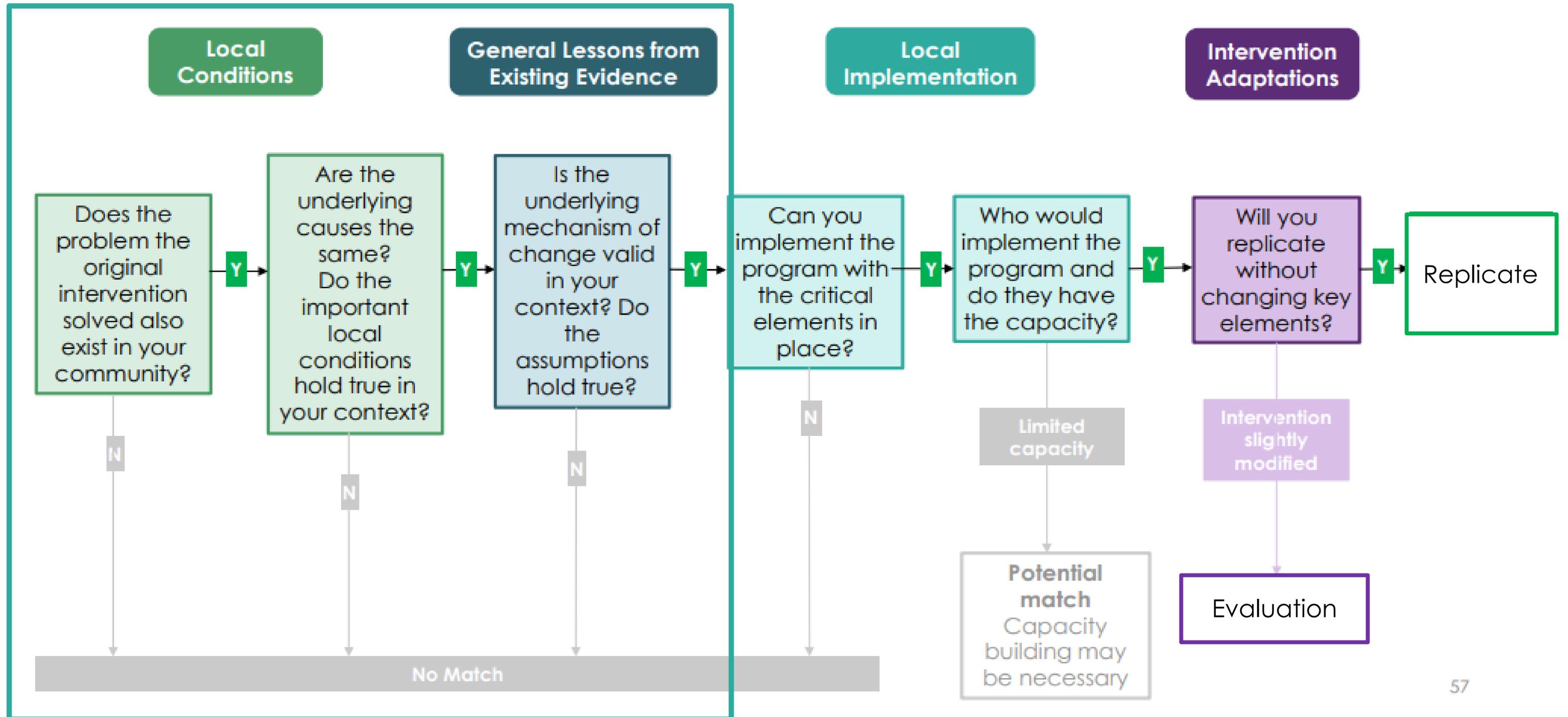
What the Evidence Says: Grades and Subjects

Reading tutoring is relatively more effective for the youngest students, while math tends to be more effective later in elementary school

- 76 studies focused on literacy and 26 focused on math

Program	Key Elements	Outcomes
Minnesota Reading Corps	Professional tutors with extensive training 1:1 tutoring for grades K–3 Daily sessions During school day Focus on reading as foundational skill	Students in grades K–3 who received MRC tutoring scored significantly higher on literacy assessments compared to the control group
Number Rockets	Professional tutors Small groups (2–4 students) 3 or more times per week During school day Focus on math in early elementary school (first grade)	Students who received Number Rockets scored significantly higher on the Test of Early Mathematics Ability (TEMA-3) compared to the control group
Experience Corps	Volunteers with extensive training 1:1 tutoring 2–4 times per week Focus on reading as foundational skill	Students who received EC showed improved passage comprehension and grade-specific reading skills compared to the control group

Generalizability Framework

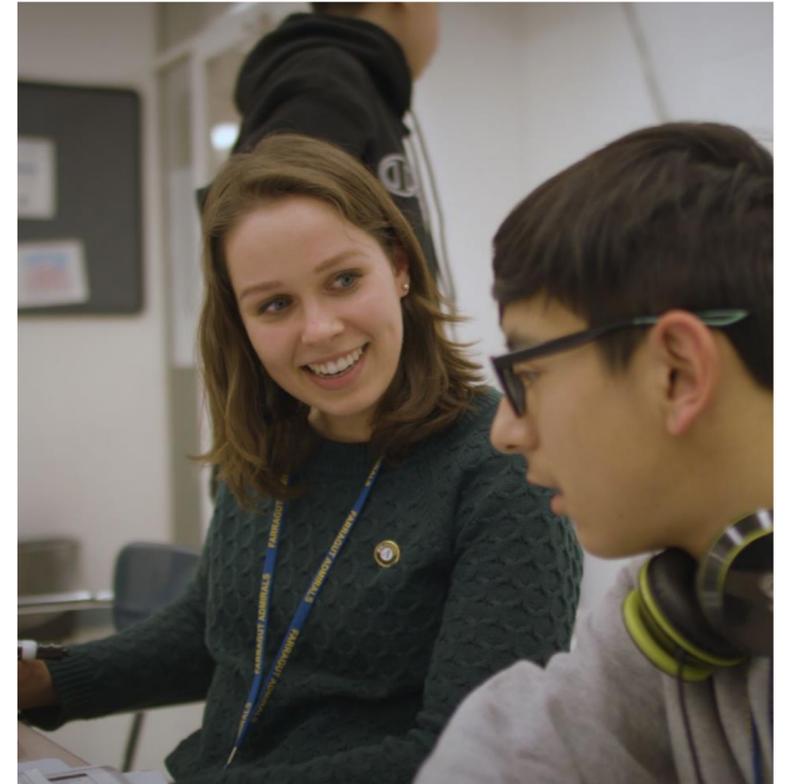


Defining Local Conditions

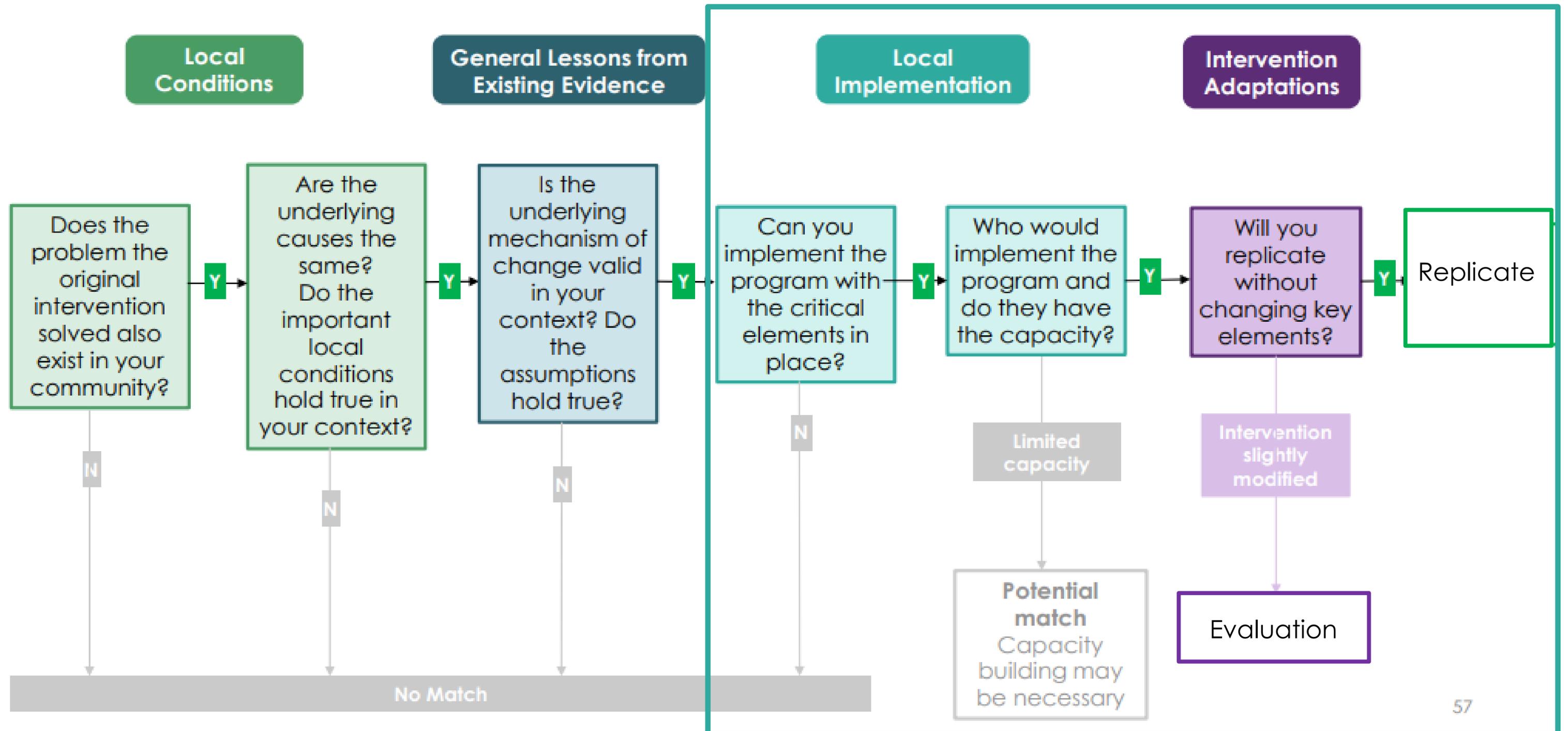
Data can be used to identify who is most in need of support, and effectively target funds and resources

Data can help implementers understand:

- Which students are most behind, and in what areas
- Which districts have the highest population of students in need of tutoring



Generalizability Framework



Questions to Consider: Tutors

- Do schools or districts have the capacity to hire and train tutors?
 - Is there an existing potential pool of tutors?
 - Do funding streams and mechanisms exist to pay potential tutors?
- Do schools or districts have the capacity to contract with tutoring providers?
 - Who will ensure that providers maintain fidelity to the program?

Questions to Consider: Program Delivery

- What needs to be in place for schools to implement tutoring programs?
- Do schools have the space or scheduling capacity to implement tutoring during the school day?
- Are there sufficient tutors to meet the demand while keeping appropriate group sizes?

Questions to Consider: Grades and Subjects

- Can state test scores help determine which students (and what grade levels, which subjects) need greater support?
- Do schools have the capacity to administer additional assessments to help identify students in need of additional support?
- Are there foundational skills that need to be supported and/or are tutors providing support aligned with specific district curriculum?

Using Data and Measuring Progress

Just as data is necessary to define the issue, continual collection and assessment of data can help implementers understand a program's impact and whether or not the program is working as intended.

- Some questions to consider:
 - Do districts have reliable systems to collect data on **student progress and achievement**? Is this data accessible?
 - What outcomes do you care about, and how will you measure them?
 - How will you coordinate with tutoring providers to measure impact?
 - Are school and district staff adequately trained to collect and maintain this data? Who will analyze the data to understand program impact?

Key Takeaways

- Students should meet with **a consistent, paid, and trained tutor** who is supported by ongoing oversight.
- Tutoring sessions should occur **at schools during the school day**.
- Tutoring should occur a **minimum of three sessions per week**.
- Tutoring sessions and materials should be **informed by student data and academic standards**.

Case Study of Best Practices: Daily, School-Embedded Tutoring

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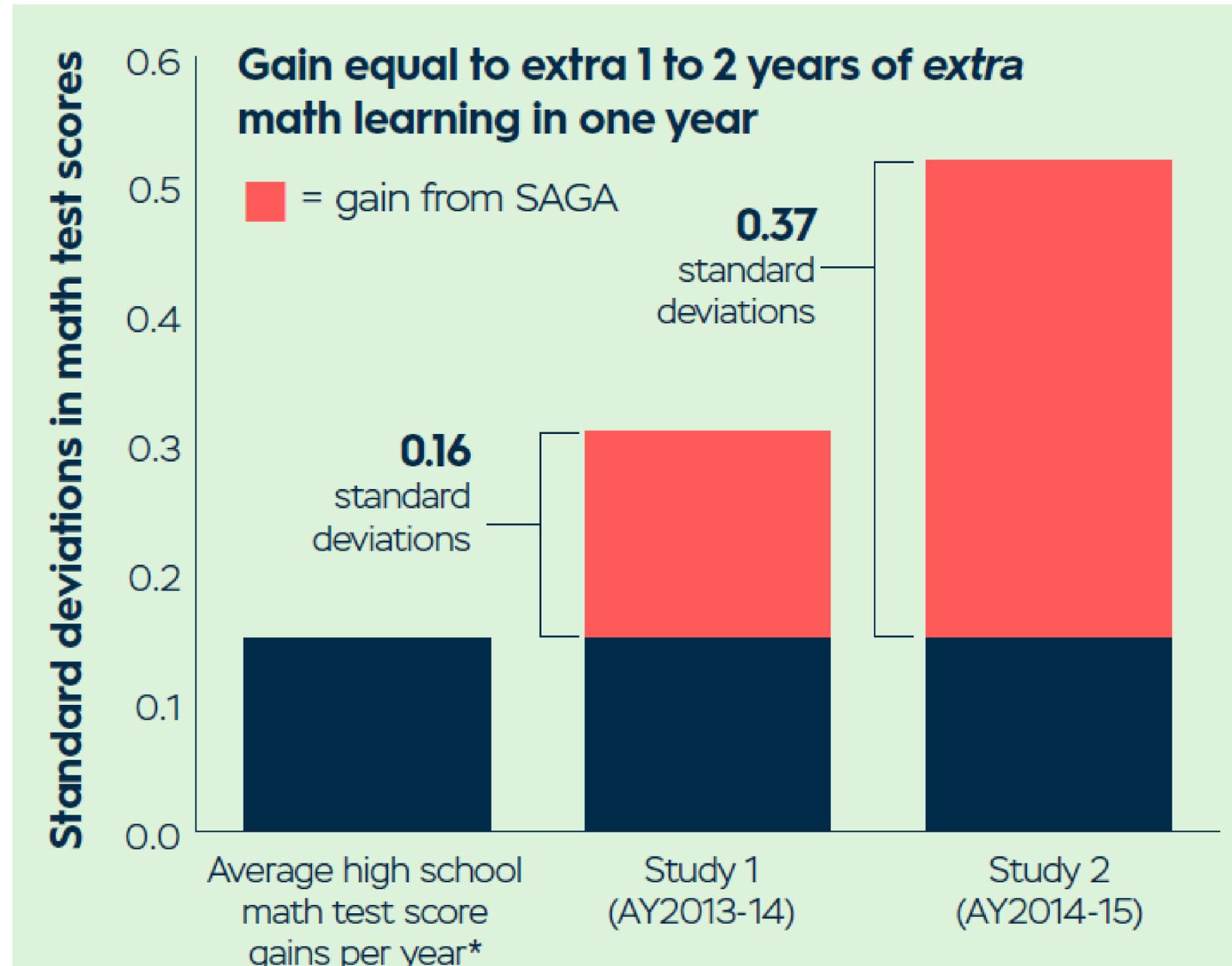




saga
EDUCATION



Research Evidence





Research Evidence

Increased

state math assessment
pass rates





Research Evidence

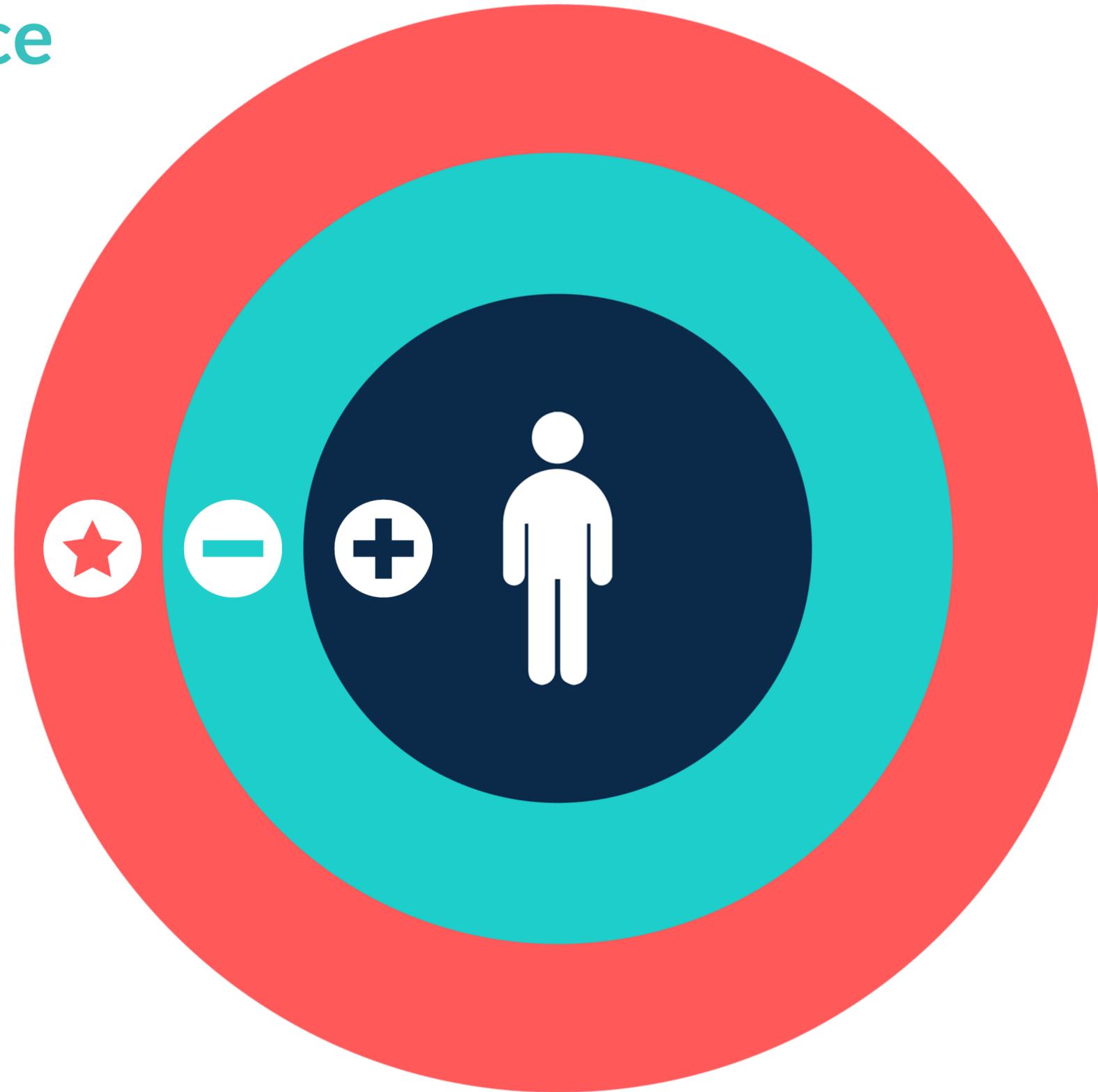
Reduced
math course failures
by as much as
63%.





Research Evidence

Reduced
non-math course failures
by as much as
26%.





Our Approach



Daily



Supportive Small Groups



In-School



Collaboration with School Teachers



Consistent Pairings



Parent Communication





Selecting & Hiring Tutors

Rigorous selection process

- Application
- Phone Screen
- Math Assessment
- Mock Tutorial, Interview & Math Talk
- Regional leadership conversation





Competencies

Communicates Effectively	Developing and delivering multi-mode communications that convey a clear understanding of the unique needs of different audience
Customer (Stakeholder) Focus	Building strong customer relationships and delivering customer-centric solutions
Interpersonal Savvy	Relating openly and comfortably with diverse groups of people
Nimble Learning	Actively learning through experimentation when tackling new problems, using both successes and failures as learning fodder
Being Resilient	Rebounding from setbacks and adversity when facing difficult decisions
Demonstrates Self-Awareness	Using a combination of feedback and reflection to gain productive insight into personal strengths and weaknesses





Competencies Continued

Action Oriented	Taking on new opportunities and tough challenges with a sense of urgency, high energy, and enthusiasm
Collaborates	Building partnerships and working collaboratively with others to meet shared objectives
Courage	Stepping up to address difficult issues, saying what needs to be said
Values Differences	Recognizes the value that different perspectives and cultures bring to an organization
Instills Trust	Gaining the confidence and trust of others through honesty, integrity, and authenticity





Training

Site Director Training

- 3–5 weeks of pre-service training
- Weekly coaching and feedback from the Director of Programs
- Quarterly leadership training meetings

Tutor Training

- 3 weeks of pre-service training
 - Focus on Relationship Building, Academics (ratio & rigor), and High Expectations
- Weekly coaching and feedback from their Site Director
- Ongoing Professional Development at least once a month
- Quarterly cohort-based trainings



Daily Schedule at a Glance				
Day 1	Day 2	Day 3	Day 4	Day 5
Welcome	Intro to Saga LP Part 2	Rigor	Collaborative Learning	Joy Factor
What does it mean to be a tutor Part 1	What does it mean to be a tutor Part 2	CFU	Analyzing Student Work	High Expectations
Educational Experience	Behavior Management Part 1	DN Review	Right Relationships Part 3	Implicit Bias
High Quality Tutorials	Behavior Management Part 2	Synch CFU	Mock Tutorials	Growth Mindset
Intentional Lesson Plan	Right Relationships Part 1	Differentiation		Character & Trust
Intro to Saga Curriculum	Right Relationships Part 2	Saga Connect		Implicit Bias/Growth Mindset/High Expectations
Intro to Foundational Skills	Right Relationships Virtually			Positive & Professional Communication
Intro to Saga LP Part 1				



If launching a program with your own tutors, lessons learned and support:

- Program Design
- Pre-service tutor and leadership training
- In-service coaching of tutor and leaders
- Fidelity Checks for implementation
- Saga Connect – virtual tutoring platform
- Saga Coach – basic tutor training portal
- Saga Curriculum – 6th grade math, Pre-Algebra, Algebra I & II, Geometry (released on a rolling basis)

Panel Discussion: Tutoring in Practice and Serving Diverse Students





Thank You!

This presentation was prepared for the Institute of Education Sciences (IES) under Contract ED-IES-17-C-0012 by Regional Educational Laboratory (REL) West at WestEd. The content of the presentation does not necessarily reflect the views or policies of IES or the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

References

Ander, R., Guryan, J., & Ludwig, J. (2016). *Improving academic outcomes for disadvantaged students: Scaling up individualized tutorials*. The Hamilton Project.

<https://www.brookings.edu/wp-content/uploads/2016/07/Full-Paper-1.pdf>

Cook, P. J., Dodge, K., Farkas, G., Fryer, R. G., Guryan, J., Ludwig, J., Mayer, S., Pollack, H., & Steinberg, L. (2014). *The (surprising) efficacy of academic and behavioral intervention with disadvantaged youth: Results from a randomized experiment in Chicago*. National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w19862/w19862.pdf

Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2020). *COVID-19 and learning loss-disparities grow and students need help*.

References

Nickow, A., Oreopoulos, P., & Quan, V. (2020). *The impressive effects of tutoring on preK–12 learning: A systematic review and meta-analysis of the experimental evidence* (Working Paper 27476). Cambridge, MA: National Bureau of Economic Research.

Robinson, C. D., Kraft, M. A., Loeb, S., & Schueler, B. E. (2021). *Accelerating student learning with high-dosage tutoring*. EdResearch for Recovery Design Principles Series.
https://annenberg.brown.edu/sites/default/files/EdResearch_for_Recovery_Design_Principles_1.pdf

U.S. Department of Education, Office of Planning, Evaluation and Policy Development. (2021). *ED COVID-19 handbook, Volume 2: Roadmap to reopening safely and meeting all students' needs*. Washington, DC. This report is available on the Department's website at <https://www2.ed.gov/documents/coronavirus/reopening-2.pdf>