



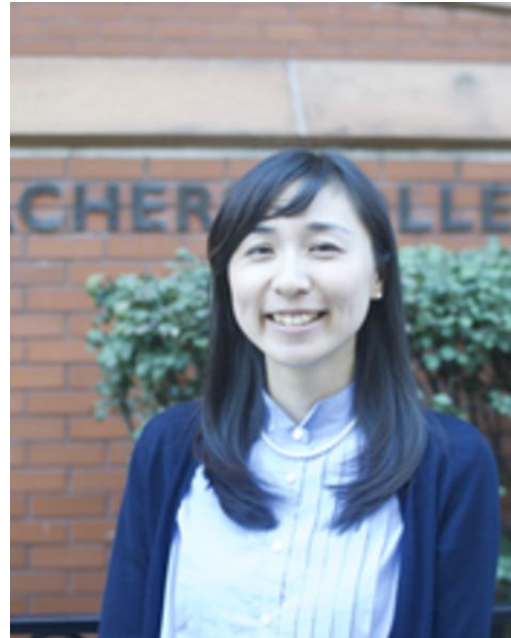
Standardizing and Applying Cost Analysis Methods to Inform Educational Decision-Making

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Presenters



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Why are you interested in cost analysis? What comes to mind when you hear this term?

Session Goals

1. Introduce Accelerate's Cost Tool
2. Session participants engage with the tool
 - a. Examine real world use case
 - b. Navigate how to use the tool
 - c. Complete applied case study
3. Reflect and discuss the use and usability of the cost tool

Agenda

- Overview of Accelerate Cost Tool
- Cost Tool Case Study: High-Impact Tutoring RCT
- Cost Tool Demo
- Applied Case Study
- Debrief & Feedback Survey

Materials Needed

- Device connected to the internet (laptop recommended)
- All session resources are available in Sched
- WIFI Information: @Hyatt_WiFi



Cost Tool Overview

Why program impact is necessary but insufficient

“Does it work?” is a necessary though insufficient question to ask about educational investments.

“Is it worth it?” must be the focus of policymakers and school leaders when considering which educational interventions to support with limited educational budgets.

“How do we do it?” is a core barrier to achieving scale even for highly effective, cost-effective interventions.

ROI - You Need An R and an I

The *value* of the program relies on two pieces of information

- program impact
- program cost

Without the impact there is no R, no student learning means not worth it.

Without the cost there is no I, no cost estimate makes it impossible to compare to other uses of limited resources (unless you have infinite resources).

The Accelerate Cost Tool Does Four Things

- Accelerate's cost tool enables users to:
 - (a) identify implementation details;
 - **(b) define program ingredients (i.e., inputs);**
 - (c) price ingredients;
 - (d) create and use cost estimate
- Accelerate's cost tool can be found here: <https://accelerate.us/cost-tool/>

Ingredients method for cost analysis








- Leverages Ingredients Method to estimate program costs
 - Ingredients Method: (a) identify program ingredients; (b) price ingredients; (c) calculate estimate of program cost (Cost to Society; Cost to School)
 - Program ingredient (input) categories include: (a) personnel-delivery & operations; (b) training & support; (c) equipment & materials; (d) facilities; and (e) other
- Cost-effectiveness: measures the return on investment in terms of changes in student learning, and relies on estimates of program impact and program cost
 - Define cost-effectiveness as: the additional months of learning gained by investing \$1,000 per pupil (or, the amount of student learning a school can purchase for \$1,000 per pupil)

Implementing cost analyses in the field

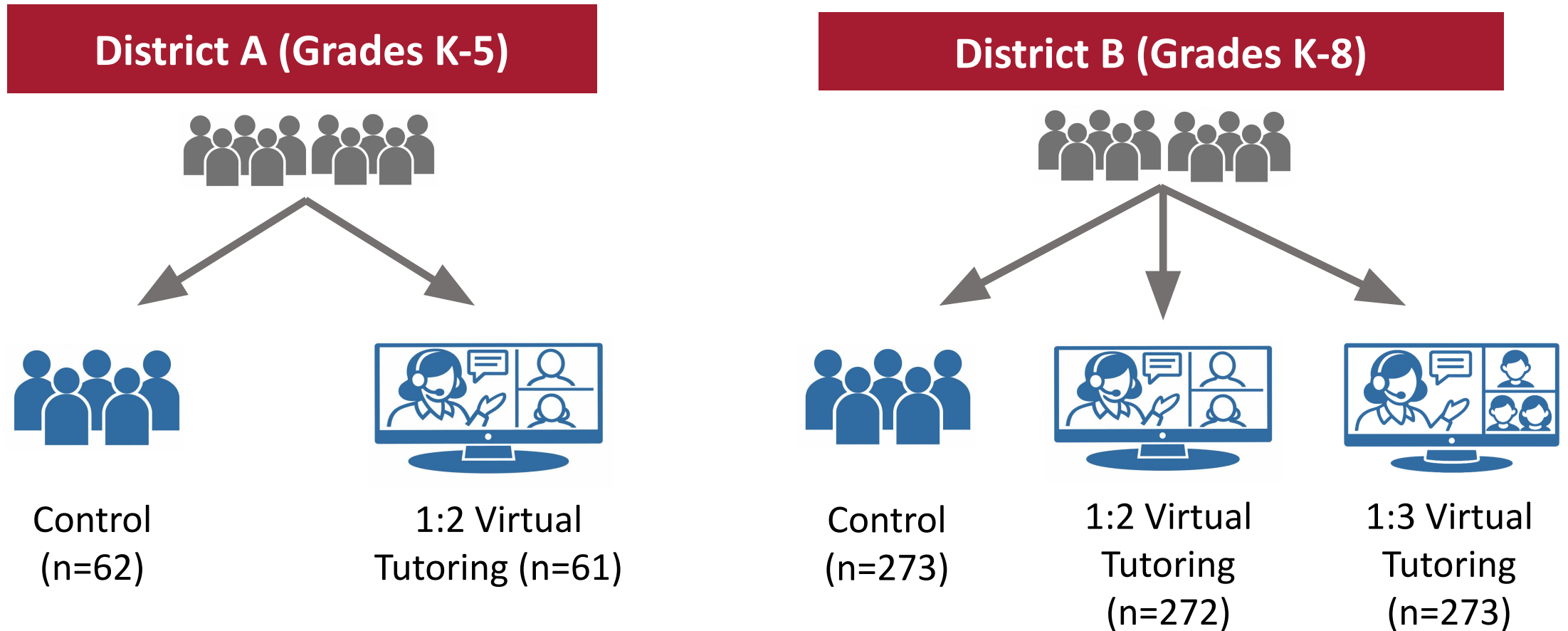
- Accelerate and their research partners have already begun implementing cost analysis in the field. The value is clear:
 - Enable a direct assessment of program-specific and implementation-specific costs
 - Provide greater clarity into the return on investment of tutoring programs
 - Deepen our understanding of who is doing what to implement a program
- Cost analysis will continue to be highly encouraged, and sometimes required, as part of research funded by Accelerate.
- Applying cost analysis to AI personalized learning tools will allow new tools to be contextualized within existing knowledge.

Cost Tool Case Study: High-Impact Tutoring

*ReadLounge Tutoring

DELIVERY	TUTOR-STUDENT RATIO	DOSAGE	TUTORS	CONTENT
 <p>Online via web-based platform (adaptive, real-time feedback)</p>	 <p>1:3</p> <p>or</p>  <p>1:2</p>	 <p>30-min sessions (during WIN block)</p>  <p>3x per week 12 weeks</p>	 <p>Prior teaching experience in the subject area</p> <p>Received training</p>	 <ul style="list-style-type: none">• Phonological awareness• Phonics• Reading Fluency• Vocabulary• Comprehension

Study Design: Randomized Controlled Trial



Research Questions

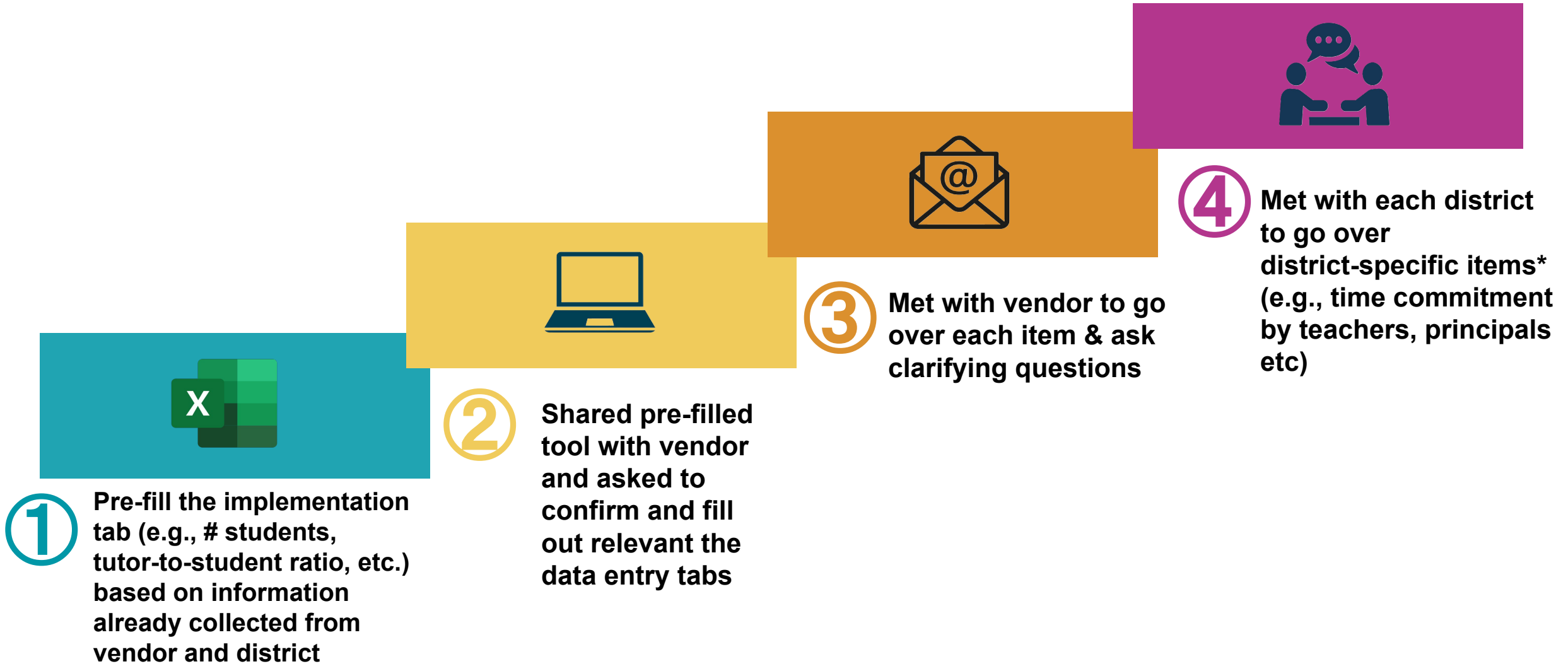
1. What is the impact of ReadLounge virtual tutoring on student achievement in grades K-8 for English Language Arts...
 - overall?
 - with a 1:2 tutor-to-student ratio?
 - with a 1:3 tutor-to-student ratio?

2. What is the cost-effectiveness of ReadLounge tutoring?

Examples of Ingredients (Inputs) Collected

1. Where was tutoring taking place? In what type of space?
2. What types of personnel **at each school** supports tutoring? What are their roles and responsibilities in relation to tutoring?
3. Approximately what percentage of their time is dedicated towards supporting tutoring? (overall, weekly, or monthly)
4. Has your school needed to purchase any new supplies or technology to support the tutoring intervention?
5. Are there any incentives for students? Were these purchased and how much?

Data Collection Process



Implementation Findings

	Intended	Actual Participation			
	All Sites	All Sites	District A (1:2 Ratio Arm)	District B (1:2 Ratio Arm)	District B (1:3 Ratio Arm)
Participation Rate	100%	90%	90%	90%	89%
		Average among participating students (actual)			
# of Scheduled Sessions	36.0	22.6	32.5	22.4	20.6
# of Attended Sessions	36.0	15.9	29.0	14.2	14.6
Average Min. per Session	30.0	20.8	24.2	20.4	20.5
Total Hours of Tutoring	18.0	5.7	11.7	4.9	5.1
N	606	543	55	244	244

Students in District A received twice the amount of tutoring

Costs Per-Pupil to Society

Cost Category	District A	District B
Personnel	\$1,268	\$246
Training & support	\$31	\$17
Equipment & materials	\$185	\$168
Facilities	\$19	\$7
Other	\$98	\$37
Total	\$1,600	\$475

Cost per hour of tutoring delivered:

District A: \$136





District B: \$95

Why these findings are valuable

- Includes not just financial costs for program services, but *all other inputs* needed to support the program (personnel, supplies, space, technology)
- The same tutoring program, under similar conditions yet...different costs and implementation results
- Despite null impact findings, still learned about key drivers of costs as well as implementation to inform future iterations
 - Cost tool allowed us to understand how and why costs differed, and collect better information to truly understand how program was implemented

Cost Tool Live Demo

Accelerate's Cost Tool (Kohlmoos & Steinberg, 2025)

- Accessible from:  <https://accelerate.us/cost-tool/>
- Downloadable as:  [Excel version](#) &  [Google Sheet](#)
- Resources
 - [Summary infographic](#)
 - [Definition of tutoring dosage](#) (scheduled vs. actual)
 - [Report on tutoring efficiency](#)
 - [Cost analysis - report](#)
 -  [Tutorial video](#)

****See links in session on Sched***

Steps: Cost Estimation and Analysis

1

Implementation Details

School, student and intervention details:

- Number of students receiving tutoring
- Session duration, frequency and intensity
- Other relevant details

2

Identify & Define Ingredients

Ingredients (resources) that derive intervention effect includes:

- Personnel
- Training & Support
- Equipment & Materials
- Facilities
- Other

You'll collect data on both *quantity* and *quality*

3

Price the Ingredients

Steps to assigning price to each ingredient:

- Identify pricing category
- Select unit of measure
- Specify quantity
- Assign price to the ingredient
- Identify who bears the cost

4

Creating and Using Cost Estimates

The tool generates estimates automatically

Cost estimates

- Cost per pupil
- Cost by category
- Cost by perspective

Accerelate's metrics

- Tutoring efficiency
- Cost efficiency
- Cost-effectiveness



Google Sheets

Copy document

Would you like to make a copy of **FINAL Accelerate Cost Tool_Final Version 2.0_Release?**



Make a copy

Applied Case Study

Now it's your turn!

Practice using the cost tool by completing the applied case study on Study Buddies tutoring program.

- Table groups of 3 to 4
- 30 minutes to complete case study
 - 10 minutes to review the case study
 - 10 minutes to enter data into the cost tool
 - 10 minutes to debrief findings and reflections

"Study Buddies" Tutoring Program Case Study

Getting Started for This Activity

- Make a copy of this worksheet (File > Make a copy or Download).
- Download or make a copy of the pre-filled Cost Tool for this activity: [Excel version] [Google version]

Task #1 – Review Program and Implementation Details

You are conducting a randomized controlled trial (RCT) to evaluate the cost-effectiveness of *Study Buddies*, an in-person English Language Arts (ELA) tutoring program by professional, certified tutors. The study involves 320 K-5 students in the Blueberry Hills Public Schools district, with approximately half randomly assigned to receive tutoring.

To Do:

- Review the "Implementation Details" tab of the tool, filled by the tutoring provider to learn about the implementation of this program.

Task #2 – Complete the "Define and Price Ingredients" Tab for Select Ingredients

Based on information from the tutoring provider and the district, the research team has identified the following ingredients necessary to implement the *Study Buddies* in this specific setting. Below, we present a select set of ingredients.

To Do:

- Complete the "Define and Price Ingredients" tab of the cost tool.

Study Buddies Tutoring Program Case Study

- **You:** Evaluator (researcher, internal research team at district/ SEA)
- **Context:** Currently conducting a randomized controlled trial (RCT) to evaluate the impact of *Study Buddies*, an in-person ELA tutoring
- **Study Site:** Blueberry Hills Public Schools district
- **Task:** Analyze Study Buddy's cost-effectiveness, using the Cost Tool

Timer

<<25:00>>

In what ways do you see the cost tool relating to your current work or an upcoming project?

Closeout

End of Session Reminders



All session materials and link to Accelerate's cost tool are available on Sched



Please take a few minutes to share your feedback on the cost tool



Further questions or feedback? Reach out to
luke.kohlmoos@accelerate.us

Feedback Survey



Please take an opportunity to provide feedback on the cost tool (link also available in Sched)



Thank You