



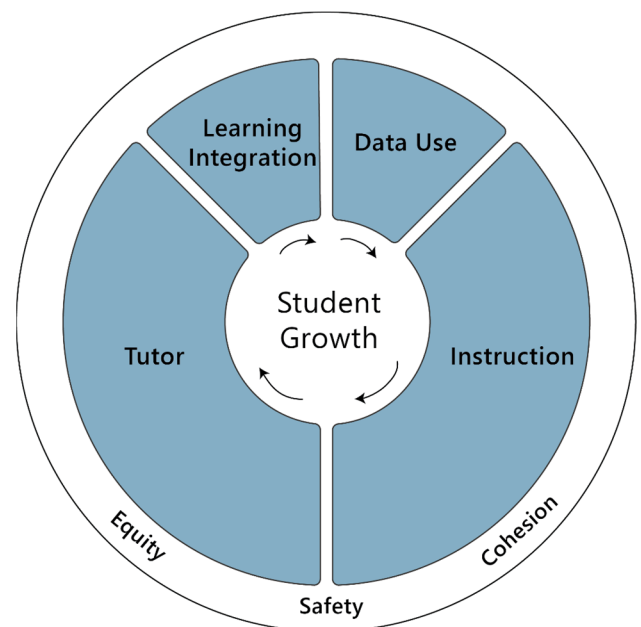
Research Priority: Identifying the Characteristics of Effective Tutoring

This document details promising avenues for future research on the characteristics of effective tutoring, and summarizes material covered in greater depth in our Research Agenda. We aim to advance knowledge about high-impact tutoring by identifying specific and worthwhile research questions — those that will lead to answers that could help policymakers and practitioners effectively implement tutoring initiatives.

These questions focus on:

- The cost-effectiveness of different tutoring models;
- Tutor skills;
- Tutor-student relationships;
- Adoption by districts, schools, families, and students;
- How programs increase engagement and implementation fidelity; and
- How best to extend the research focus.

Within each area, we identify priority research questions and provide suggestions regarding how researchers might start answering each question through within-program randomized controlled trials (RCTs), across-program evaluations, or surveys. Each research question relates to a characteristic of tutoring identified in the Research Agenda. These characteristics fall under one of the seven elements of our framework for high-impact tutoring:



This visualization conceptualizes how the components of a high-impact tutoring program relate to one another and lead to student growth.

Cost-Effectiveness

Overarching Question: How can programs deliver tutoring in the most cost-effective way?

INSTRUCTION			
Characteristic	Primary Research Question	How to Test	Related RQs
Student-Tutor Ratio	What is the marginal change in student learning when the student-tutor ratio increases by an additional student (from 1:1 to 4:1)?	<i>Within-Program RCT:</i> Randomly assign students to tutoring groups with ratios ranging from 1:1 to 4:1.	Do smaller student-tutor ratios facilitate more positive tutor-student relationships? Do small group tutoring sessions facilitate more positive peer relationships than 1:1 tutoring sessions?
Dosage	What is the marginal benefit of increasing the number of hours students spend with tutors each week?	<i>Within-Program RCT:</i> Randomly assign students to receive different numbers of tutoring hours per week within a program.	Does the distribution of tutoring dosage matter? Could tutors and students meet for 2 hours, 1x per week and receive the same benefits as tutors and students who meet for 30 minutes, 4x per week? Does the ideal session frequency and length differ by age and subject?
Delivery	Can virtual tutoring be as effective as in-person tutoring?	<i>Within-Program RCT:</i> Randomly assign students to receive tutoring in person, virtually, or through a combination of the two. <i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare the differences between in-person and virtual tutoring programs.	What is the marginal impact of in-person over virtual tutoring? What is the marginal impact of blended over virtual tutoring? What is the marginal impact of in-person over blended tutoring?
Delivery	Could synchronous tutoring sessions involve asynchronous instruction to effectively increase student learning?	<i>Within-Program RCT:</i> Randomly assign students to tutoring sessions that use computer-assisted instruction and those that do not.	Does adding an asynchronous component to tutoring allow for a) employing lower-skilled tutors and b) tutors to increase their caseloads?

TUTOR			
Characteristic	Primary Research Question	How to Test	Related RQs
Tutor Type and Training	What type and amount of training do lower-skilled tutors need to improve student learning?	<p><i>Within-Program RCT:</i> Randomly vary the length of training tutors receive.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare effectiveness among programs with different types of training (e.g., length, focus, etc.).</p>	Do certain tutor types benefit more than others from training? (e.g., volunteers and university students)

Tutor Skills

Overarching Question: What makes for effective tutors?

TUTOR			
Characteristic	Primary Research Question	How to Test	Related RQs
Tutor Recruitment	How effective are tutors with different backgrounds?	<p><i>Within-Program Observational Evaluation:</i> Compare the effectiveness of different tutors within the same program.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation comparing student learning outcomes by minimum tutor qualifications.</p>	<p>Are tutoring programs more effective when they require tutors to have a minimum level of education?</p> <p>Are college students, recent college graduates, and seniors equally effective tutors?</p> <p>Are tutors who have degrees in the subjects they are teaching more effective (particularly at the high school level)?</p> <p>Do entrance exams for tutors improve the effectiveness of a tutoring program?</p>
Tutor Support	Does ongoing support enhance the effectiveness of tutoring programs?	<p><i>Within-Program RCT:</i> Randomly assign tutors to receive high levels of support</p>	

		for the duration of the program versus low levels of support.	
Tutor Oversight	Are tutoring programs more effective when they incorporate accountability measures for their tutors?	<p><i>Within-Program RCT:</i> Randomly vary the types of tutor oversight (e.g., firing, standards, observations, incentives, etc.) tutors receive across tutoring sites.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare effectiveness among programs with different types of tutor oversight (e.g., firing, standards, observations, incentives, etc.).</p>	<p>Are tutoring programs more effective when they set consequential standards for their tutors?</p> <p>Are tutoring programs more effective when tutors' behaviors are incentivized?</p> <p>Are tutoring programs more effective when student learning gains are incentivized?</p>

Tutor-Student Relationships

Overarching Question: How can tutoring programs facilitate strong relationships between students and their tutors in the service of improving learning?

INSTRUCTION			
Characteristic	Primary Research Question	How to Test	Related RQs
Tutor Consistency	Does having a consistent tutor for the program duration improve the effectiveness of the tutoring?	<p><i>Within-Program RCT:</i> Randomly assign students to meet consistently with one tutor or interact with multiple tutors over the duration of the program.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare the differences between those that use consistent versus varied tutors.</p>	<p>Does “looping” students with tutors across semesters or years improve student outcomes?</p> <p>Is “looping” more effective during major transitions (e.g., 8th to 9th grade)?</p>

Tutor-Student Relationship	Does intentionally embedding relationship-building content in tutoring sessions improve student outcomes?	<i>Within-Program RCT:</i> Randomly assign tutors to embed relationship-building content into tutoring sessions.	Do improved relationships between tutors and students lead to greater student learning?
Tutor-Student Relationship	Does matching tutors and students on demographics (e.g., race) improve student outcomes?	<i>Within-Program RCT:</i> Randomly assign tutor-student matches based on demographic matches or not.	What is the marginal impact of demographic-matching when programs focus explicitly on relationship-building?

Adoption by Stakeholders

Overarching Question: How can we increase adoption of tutoring programs among districts, schools, teachers, parents, and students?

PROGRAM FOCUS			
Characteristic	Primary Research Question	How to Test	Related RQs
Students: Who gets the tutoring	Are the potential benefits from universal tutoring programs too costly compared to need-driven tutoring programs?	<p><i>Within-Program RCT:</i> Randomly vary the cut-off point for receiving tutoring (e.g., based on a test score or continuous grading score) to determine who receives the tutoring.</p> <p><i>Within-Program RCT:</i> Randomly assign tutoring sites to provide tutoring for a sub-group of students or make tutoring available to all students, holding other aspects of the program design constant.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare engagement across</p>	Do universal tutoring programs improve students' perceptions of tutoring?

		different tutoring program recruitment strategies.	
LEARNING INTEGRATION			
Characteristic	Primary Research Question	How to Test	Related RQs
Take-up: Opt-in vs. Opt-out Enrollment	Are tutoring interventions that require parents to opt-in their students less effective at increasing overall student learning than those that are mandated, or have an opt-out feature?	<p><i>Within-Program RCT:</i> Randomly assign students to programs in which their parents have to either opt-in or opt-out.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare adoption between programs that use opt-in versus opt-out enrollment.</p>	
Take-up: Recruitment Strategies	Are certain recruitment strategies more effective at getting sites (districts, schools) to enroll in tutoring intervention programs?	<p><i>Within-Program RCT:</i> Randomly vary the recruitment strategies used on tutoring sites.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare program adoption across different tutoring program recruitment strategies.</p> <p><i>Survey:</i> Conduct a survey of school leaders varying the presentation of potential tutoring program descriptions and compare expressed interest/requests for more information.</p>	
Setting	How much more effective are during-school tutoring programs than out-of-school tutoring programs?	<p><i>Within-Program RCT:</i> Randomly vary whether students receive the tutoring sessions during</p>	How much more effective at increasing student learning are mandatory tutoring programs than voluntary tutoring programs?

		<p>school time or out-of-school time.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare the effectiveness of programs that are during school versus out-of-school.</p>	<p>Does the increase of student learning associated with in-school tutoring justify the additional costs?</p> <p>Does during-school tutoring result in more engagement among students than out-of-school tutoring?</p>
Curricular Alignment	To what extent is tutoring more effective when the tutoring session content aligns with students' core curriculum?	<p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare effectiveness between programs that have standalone curricula and those that have systems for aligning content.</p>	What is the best way to measure the degree of alignment between tutoring content and students' core curriculum?

How Programs Increase Engagement and Implementation Fidelity

Overarching Question: How can we increase engagement and implementation fidelity in tutoring programs among districts, schools, teachers, parents, and students?

LEARNING INTEGRATION			
Characteristic	Primary Research Question	How to Test	Related RQs
School Engagement	Are tutoring programs more effective when resources are dedicated to connecting them to the school?	<p><i>Within-Program RCT:</i> Randomly vary whether tutoring sites have a school-based coordinator.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare effectiveness between programs that employ school-based coordinators or not.</p>	Does school engagement with the tutoring program improve teachers' perceptions of tutoring?

Teacher Engagement	Does more tutor-teacher interaction result in better student outcomes?	<p><i>Within-Program RCT:</i> Randomly vary whether tutoring sites facilitate communication between teachers and tutors.</p> <p><i>Across-Program Evaluation:</i> Conduct a multi-program evaluation and compare effectiveness between programs that actively connect tutors and teachers.</p>	<p>Does teacher engagement with the tutoring program improve teachers' perceptions of tutoring?</p> <p>Does teacher engagement with the tutoring program improve students' perceptions of tutoring?</p>
Family Engagement	Does increased family engagement with the tutoring program improve student outcomes?	<p><i>Within-Program RCT:</i> Randomly assign students to have their parent receive information on the tutoring program or not.</p>	Does parental engagement in the tutoring program improve students' perceptions of tutoring?

How Best to Extend the Research Focus

Overarching Question: How can we learn more about the multifaceted benefits of tutoring?

Expanding Outcome Measures			
Characteristic	Primary Research Question	How to Test	Related RQs
	Do tutoring programs improve outcomes beyond student test scores?	<p><i>Within-Program RCT:</i> Randomly assign students to receive tutoring or not and assess a wide variety of student outcomes.</p>	Does tutoring improve motivation, result in more positive relationships, encourage advanced course-taking, reduce absenteeism, reduce disciplinary actions, and lower dropout rates, etc.?
Long-Term Outcomes			
	Does higher-dosage tutoring result in longer-term outcomes?	<p><i>Within-Program RCT:</i> Randomly assign students to receive different durations of tutoring (e.g., one year,</p>	<p>How long do the effects from tutoring persist?</p> <p>How do different tutoring program characteristics</p>

		<p>two year, multi-year) and assess long-term outcomes.</p> <p><i>Across-Program Evaluation:</i></p> <p>Conduct a multi-program evaluation and compare long-term effectiveness among different types of programs.</p>	<p>contribute to long-term outcomes?</p>
Tutor Benefits			
	<p>Do tutors experience positive social and career-related benefits?</p>	<p><i>Within-Program RCT:</i> If tutoring programs have an oversupply of eligible tutors, randomly select who becomes a tutor and collect survey and longitudinal data.</p> <p><i>Within-Program RCT:</i> Randomly assign tutors to receive specific career development and social support during their tenure as tutors.</p>	<p>Can tutoring programs intentionally promote better outcomes for tutors through curated additional programming?</p>