Research Agenda

Accelerate
The National Collaborative for Accelerated Learning

Despite the extent of existing research on the impact of tutoring, much remains unknown. There is a need for more research into the specific tutoring programs that improve student learning, for which students, in what educational contexts, at what costs, and the programmatic features most associated with student achievement gains. In particular, based on our review of the existing landscape of evidence on tutoring program impact, researchers and policymakers alike would benefit from more studies that address the following:

Understudied Student Groups

- Focus on programs that serve students older than grade 2, especially math and literacy programs for students in grades 6-12. It is vital to ensure that tutoring programs are available (and accessible) to support students in the upper grades and that these programs are subjected to the same rigorous expectations (and evaluation) as those that provide tutoring to younger students.
- Focus on results for key student groups, such as students with individualized education plans (IEPs), multilingual learners, and economically disadvantaged students. Serving students who may need tutoring services the most means making sure tutoring programs work for those particular students.

Study Design

- Meet What Works Clearinghouse and ESSA Tier 1 evidence standards with a minimum of 350 study participants. More studies with larger sample sizes will provide a more complete picture of the impact of tutoring when done at scale, and greater opportunity to disaggregate impacts by student characteristics to explore potentially differential impacts for different groups of students. Larger study samples will also provide more precise estimates of tutoring impacts and reduce uncertainty around the expected impact of tutoring on student learning.
- Incorporate multiple treatments into randomized controlled trials (RCTs), such as 3-armed RCTs with large samples, that enable a direct test of program design features (e.g., tutor type, session length, program length, tutor-student ratio, dosage, and tutor training intensity). Directly testing program features, while also continuing to assess the average impact of tutoring programs more generally, will help the field understand which program design features are most essential to improving student learning.

Study Outcomes

- Focus on policy relevant outcomes based on nationally normed assessments and/or end-of-year state exams. Demonstrating the impact of tutoring on proximal outcomes (e.g., diagnostic assessments, provider-developed assessments) provides insight into how specific features of tutoring curriculum might translate into changes in discrete skills. Yet, the extent to which improvements in discrete skills translates to more general knowledge and more policy-relevant outcomes that impact students' life outcomes is an area requiring significantly more research attention.
- Include longer term outcomes to assess the extent to which the impact of tutoring persists (or fades away). A better understanding of how tutoring impacts the long term learning trajectory of students will clarify both the long term cost-effectiveness of tutoring and whether new improvement strategies are needed (such as booster doses of tutoring).
- Link improvements in foundational skills assessed on diagnostic exams to performance on state-mandated end-of-year exams (e.g., grade 3 reading assessments). Given the renewed focus on developing early elementary students' foundational literacy skills, it is becoming increasingly important to understand whether (and to what extent) improvements in foundational skills translate into broader measures of student performance.

Data Collection and Replication

- Collect more precise, valid, and itemized data on program costs (both to the school/district and to society at large). Understanding program cost and being able to compare costs across different tutoring programs and with other education interventions is a core component of understanding the cost-effectiveness of tutoring and, ultimately, the ability to scale effective tutoring programs and practices.
- Engage in ongoing replication of impact evaluations of programs that have already completed RCTs. Understanding the generalizability and reliability of a program, as well as its range of potential outcomes, will improve the use and usefulness of tutoring metrics (e.g., tutoring efficiency and cost-effectiveness) and will support more informed and nuanced decision-making. Ongoing replication also prevents wholesale judgment of a program based on a single program impact estimate derived from just one experimental evaluation in a particular research setting.

Artificial Intelligence (AI) & Tech-Enabled Tools

- Identify and study the design, implementation, impact, and cost-effectiveness of AI-enabled tools and tech-enabled models.
- Identify AI and tech-enabled program models and program design features that improve student learning at the lowest cost.

Summary of Accelerate's Research Agenda	
Understudied Student Groups	• **Grade 3+** | Focus on programs that serve students older than grade 2, especially math and literacy programs for students in grades 6-12. • **Specific student populations** | Including students with IEPs, multilingual learners, and economically disadvantaged students
Study Design	• **Rigorous evidence** | Randomized controlled trials (RCTs) that meet What Works Clearinghouse and ESSA Tier 1 evidence standards (> 350 students) • **Multiple treatments** | Multi-arm RCTs enable a direct test of program design features
Study Outcomes	• **Policy-relevant outcomes** | Including nationally normed assessments and/or end-of-year (EOY) state exams • **Skill development and assessment** | Link improvements in foundational skills to performance on EOY state exams • **Longitudinal approach** | Assess the extent to which impact of tutoring persists
Data Collection and Replication	• **Cost data** | Collect more precise and itemized data on program costs (both to the school/district and to society at large) • **Replication trials** | Enables insight into the generalizability and reliability of a program's impact across different schooling settings
Artificial Intelligence (AI)	• **AI and Tech-Enabled Tools** | Identify and study the design, implementation, and impact of AI and tech-enabled tools and models • **Cost-effectiveness** | Identify AI and tech-enabled models and program design features that improve student learning at the lowest cost

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