# Challenges and Solutions

## Scaling Tutoring Programs

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## Scaling Tutoring Programs

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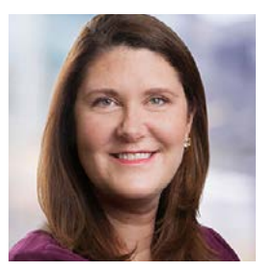

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# Introduction

COVID-19 has led to unprecedented disruption in education around the world. In response, education leaders and policymakers have turned to interventions that have proven successful in accelerating student learning. Research consistently finds that high-impact tutoring can yield strong positive impacts on student achievement across subjects and grade levels and across countries – providing an average of more than four months of additional learning in elementary literacy and almost 10 months of additional learning in secondary school math (Dietrichson et al., 2017; Fryer, 2017; Nickow et al., 2020). While most of the studies have investigated in-person tutoring, recent studies have found strong positive effects of virtual tutoring as well (Carlana, & Ferrara, 2021; Gortazar et. al., 2023). Moreover, parents want tutoring for their children. In fact, the US spent approximately $47 billion on tutoring in 2020.

While tutoring has shown unusually strong benefits, effectively scaling tutoring initiatives to meet the needs of all students can be challenging. Previous efforts to scale tutoring, such as those under the U.S. No Child Left Behind Act's Supplemental Education Services have not always been beneficial. Low enrollment, attendance rates, and variable instructional quality have all been identified as contributing to lack of impact (Hienrich et al., 2014).

Now as education leaders invest in expansive tutoring efforts – with nearly 40% of districts in the U.S. explicitly prioritizing tutoring in their spending plans under the American Rescue Act (FutureEd, 2022) – understanding the facilitators and barriers to providing quality tutoring services at scale can reduce the likelihood of implementing poor quality programs and increase the likelihood of student success.

The best evidence for the potential effectiveness of tutoring comes from programs that develop positive, trusting tutor-student relationships; focus on students' specific strengths and needs; use high-quality instruction; have a frequency and duration that is developmentally appropriate and sufficient to meet students' learning goals; and are utilized by students most in need of learning acceleration. These are High-Impact Tutoring Programs. They are usually characterized by having tutoring embedded during the school day. Embedded programs have a significantly higher likelihood of student attendance and reaching the students with the highest need. School-based programs equalize access as all students are able to participate without additional cost for the students or transportation requirements. For tutoring approaches to be effective, students have to spend a substantial amount of time working with their tutor. High-impact programs tend to have a minimum of three sessions per week. The basis of effective tutoring is strong tutor-student relationships, so students work with a consistent tutor who is supported by ongoing oversight and coaching so that they are skilled at relationship-building as well as in instruction in the content area. High-impact programs also inform tutoring sessions with data so that tutors understand students' strengths and needs and build their sessions to focus on areas for growth; they also use instructional materials that are aligned with research and state standards.

Many districts sought to provide students with this form of high-impact tutoring in response to pandemic-induced learning needs. Some started earlier than others, and we aimed to learn from the experiences of the early adopters to help inform a smoother implementation among those beginning the process later. During the 2021-22 school year, we partnered with school districts, tutoring providers, and quarterback organizations that support implementation across districts to learn from their efforts in implementing tutoring.

Here we report on the results of this cross-district implementation study. Our goal is to provide a snapshot of lessons learned about common barriers to implementing highly-effective programs and the ways that districts have overcome these barriers with success. We draw on findings from 112 semi-structured interviews with 90 interviewees participating in a study examining the national landscape of tutoring efforts in the United States. Interviewees included administrators, teachers, tutors, and other program staff from nine school districts and one charter management organization, seven tutoring providers, and six quarterback organizations that support implementation across districts.

Overall, we found two key facilitators for the implementation of high-impact tutoring. The **large federal investment,** with earmarked funds for learning recovery, substantially reduced, and in many cases even eliminated, financial constraints to investing in relationship-based personalized instruction. In addition, a **fundamental belief** by most educators is that instruction focused on each student's strengths and needs by an educator who knows them well and has high-quality instructional materials can be successful. Families with financial resources have invested in tutoring for their children for centuries, and most people believe that this approach can accelerate learning if done well.

**Funding** and **belief** in the potential of tutoring facilitated the takeup of tutoring; however, a number of common barriers emerged as well. Overall, the pandemic presented challenges to educators and education leaders and many were unable to fully engage in the educational reform process needed to implement tutoring with quality. As a result, the implementation of new programs or even the adjustment of existing approaches could be challenging no matter what the approach. Moreover, tutoring is not easy to implement. First, it needs tutors, and recruiting educators tends to be resource intensive, especially with the particularly tight labor market following the pandemic. Second, once tutors were hired they needed training, oversight, and instructional materials. These needs did not prove as challenging as recruitment but were nonetheless an obstacle for districts. Similarly and third, tutors needed data on student learning so that they could target tutoring sessions to overcome students' barriers to learning. The great benefit of tutoring comes from personalization and tutors needed data to personalize. Fourth, one of the greatest challenges was scheduling tutoring during the day. Within-school tutoring requires a change of routines. In early elementary school, tutoring can fit relatively smoothly into the school day because students often remain in the same classroom for most of the day and having adults in addition to the teacher move in and out of the classroom is relatively common. However, in secondary schools, schedules are more complicated and rigid, making the implementation of intensive tutoring for students far more difficult. Relatedly and fifth, once scheduled, tutoring sessions only work if students show up. Student attendance at tutoring was a challenge for some schools. Finally, in order to implement this unusually effective strategy with fidelity, schools and districts needed to build buy-in across a broad range of stakeholders. Teachers in particular needed to be flexible in scheduling and, often, in providing tutors with information on students. This type of contribution, especially in light of the pandemic, often required deliberate focus on building buy-in.

In the following sections, we describe each of these six issues in more detail, as well as the solutions that districts and states have found to overcome them.

# Problems and Solutions

## Tutor Recruitment

With tight labor markets, tutors – like many other professions – have been in short supply. A representative from a quarterback organization, working across districts, highlighted this challenge, though it was felt broadly across the districts we studied:

> *There aren't enough [tutors]. It's because of the overall labor market shortage. And then you're trying to find or hire people to be volunteers or to be paid like, you know, through a large stipend, in many cases to do tutoring. … In reality, their ability to recruit tutors, to actually do the programming is much, it's much more challenging for them than it's been in the past.*

Having a well-trained and coached, consistent tutor was a key component of high-impact tutoring in the districts we studied and they approached the recruitment of tutors in varying ways. Some districts and schools recruited and managed tutors internally. Other districts and schools requested proposals from external contractors to supply tutors to staff district programs or to provide full-service tutoring programs. In either case, tutors had to come from somewhere and education leaders worked to establish pathways for effective tutors that can supply effective tutors both for now and for the future.

### **Solution 1:** Utilize existing teachers and paraprofessionals

Using existing teachers and paraprofessionals as tutors was the first option many districts explored. Building on relationships between teachers and students allowed for a smooth transition between classroom instruction and tutoring, especially when using materials for tutoring that were supplemental to or aligned with the school's classroom curricula. A teacher who also served as a tutor described her district's rationale for utilizing teachers in their tutoring program:

> *... we know the kids... it's a very rural setting...so having that ability to have extra staff members, it just doesn't exist. And so doing the best with what we have is what we're doing. And it's working beautifully.*

Not surprisingly, time was the biggest challenge to using existing school employees as tutors within the school day. Having a sufficient number of tutors to meet the need required teachers and paraprofessionals to reallocate time in their schedule to devote to tutoring. When tutoring was done immediately before or after school, using teachers and paraprofessionals was easier, but student attendance tended not to be nearly as consistent during those times as it was within the school day.

### 🔍 **Solution 2:** Recruit community members

The research shows that with training and ongoing support, many people can be strong tutors. Districts found that hiring community members – parents and grandparents of students, retirees, and others – may fill the need for tutors within a school and deepen ties to the community. One tutor highlighted the potential draw of tutoring for retired teachers who wish to continue to support students:

> *And the reason I chose to start tutoring is I am retired. I'm a retired teacher, of course, and I actually retired from [this school] where I'm tutoring. And it's just something I love – one of my passions is just helping kids to see the beauty of math and to realize that everybody is a math person.*

Most community members need greater support than classroom teachers to be effective tutors and most districts recognized this need. In addition, even when using community members as tutors, paying for tutors' time led to more consistent attendance and commitment, mirroring the finding from prior research that volunteers are not as effective as paid tutors (Robinson & Loeb, 2021).

### 🔍 **Solution 3:** Leverage university students

In communities near institutions of higher education or those that chose to have virtual programs, university students were a rich source of tutors. University students served as role models when they had similar backgrounds to the students they tutored in addition to benefiting from tutoring themselves. The U.S. federal work-study program allows students to tutor to earn money to pay for educational expenses. In other cases, students worked as tutors to fulfill community service requirements for graduation or in part-time jobs. Additionally, university students who excelled at tutoring often seek out careers in education, strengthening the teacher pipeline and therefore increasing the education workforce.

Students already enrolled in teacher training programs have proven to be particularly good sources of tutors. Some programs have integrated tutoring into their training for aspiring teachers and require it as a part of teaching method classes. Others allow students to tutor as part of their required field experience. In each of these cases, aspiring teachers are able to hone their skills by spending more time in an instructional role with students.

However, university students have presented some challenges as tutors. In some cases, their own class schedules made it difficult to be available during the school day; and their schedules changed from semester to semester, limiting their ability to tutor at the same time over the course of a school year. Additionally, university students prioritized their own classes at times (e.g. during final exams) leading to absences as tutors. Both pay and incorporation of tutoring into course requirements, such as for teacher preparation, can reduce the potential downsides of using university students as tutors.

### 🔍 **Solution 4:** Coordinate secondary school students

Some districts employed their own secondary school students as tutors. One district administrator stated, “Our best tutor that we had…was our [secondary] high school junior.” This “near peer” approach gave secondary school students early experiences in an instructional role and provided younger students with role models of successful students. However, secondary school students required particular training on job skills as well as working with students and covering the curriculum. Coordinating schedules for both the tutors and tutees also presented challenges.

### 🔍 **Solution 5:** Employ virtual tutors

Districts and tutoring providers in our sample found that hiring virtual tutors to provide instruction from across the country, or even internationally, increased the pool of tutors significantly. While these tutors may not have ties to the local community, they can significantly expand the capacity of tutoring programs when local tutors are in short supply, which is frequently the case in tight labor markets or in rural areas. Tutors with specialized content knowledge, such as in secondary math, are also easier to find via virtual tutoring. Virtual tutors generally are able to manage assignments at different geographic locations without the logistical burden of getting from one place to another. Even for relatively local tutors, online options for tutoring were appealing because they reduced commuting times.

## Tutor Training and Instructional Materials:

A wide range of individuals can be effective tutors if given the right support. Ideally, tutors are able to draw on pedagogical skills and content knowledge, as well as strong instructional materials, to adapt tutoring sessions in response to each student's skill level and interests, supporting students' progress toward long-term academic goals (Robinson & Loeb, 2021). In practice, different types of tutors need different levels of support given their prior teaching experiences. For example, a retired teacher talked confidently about her ability to design and implement personalized instruction with limited additional training:

> *...I look ahead [in the textbook], so I know what they're going to be doing and what kinds of things they're going to have to know...most of my session is me talking to them, and them answering me back and showing me what they're thinking...I don't [just] leave them to it. Like for instance, when they first get to me, I might have three or four little problems for them to do. And I can tell in about a half a blink, if they know what they're doing.*

In contrast, a secondary school student found it more challenging to gauge students' understanding and generate instructional content:

> *...[I'd] ask the teachers like, hey, can we have a meeting? So we can talk about... what am I specifically supposed to do? ...you're saying they're supposed to be doing integers, okay. Like, what does that mean?*

The quality and quantity of tutor training and instructional materials varied significantly among the school districts and tutoring providers with whom we spoke.

**Solution 1:** Provide pre-service training to tutors in line with their prior experiences

Most high-impact tutoring providers required tutors to participate in training prior to working with students. Trainings were sometimes lengthy – some secondary school and university students took a full course on instructional practices while tutoring, which provided pedagogical training as well as opportunities to address issues that arose during tutoring sessions. Others received one to two weeks of training prior to beginning tutoring, while others completed a simple online training program that took as little as four hours.

Tutors reported finding training helpful when it included information on specific instructional approaches, opportunities to practice instructional moves, and honest discussions about challenges they were likely to face as tutors. One tutor said:

> *And then, starting in August, I had two weeks of training...I was observed for the interventions I would be doing just to make sure that like it was all up to standards, and that I was able to do that before like actually going with the kids. So it was nice to have, especially when I'm, I wasn't too experienced with working with kids.*

While another pointed out the importance of equity training:

> *So we had, I think it was like a week and a half, or maybe two weeks of training, virtual and online. It consisted a lot of how to execute the curriculum, but also had components consisting of implicit biases, and racial injustices, a lot of inequities of how happened in the school system. So it had like, two major parts: learning about how to do the job at hand, but also understanding, like your role, specifically outside of just executing this...I think it was very useful.*

### 🔍 **Solution 2:** Invest in experienced tutor coaches

At least as important as pre-service training, ongoing oversight and coaching was required to identify tutors in need of additional support and provide additional feedback. One tutoring program identified two coaches for each tutor, one school employee and one tutoring provider employee. Tutors in this program expressed feeling well supported:

> *It's always a feedback loop...I have come up with questions when I'm working with students. And I'll use most of the communications by email to the [provider coach] and then my internal coach. And they're both very responsive...[The provider coach] also has office hours, I think, a couple times a month, were via zoom, so if I did have more in depth question, I could talk to her live...*

### 🔍 **Solution 3:** Use a tutoring curriculum paired with ongoing formative assessments

Because many tutors were not experienced teachers, they needed instructional materials to design and run effective tutoring sessions. Some tutoring providers developed effective materials specifically for tutoring. In other cases, tutors worked with the classroom materials but often needed support in using these materials effectively.

A number of early-literacy tutoring programs have dramatically increased students' reading skills through short, scripted tutoring sessions (Cortes et. al., 2023; Markovitz et. al., 2021). Students participated in ongoing assessments provided by their tutor or through an associated technology-based app. Based on their results, tutors were prompted to use a specific lesson or instructional approach. One tutor stated:

> *So, [tutoring program] does not expect you to come in with knowledge of how [literacy development] works. And I certainly did not come into the program with any of that knowledge. But they prep you pretty well the first month with the different interventions that they have kids do, and what kinds of interventions are used at different reading levels.*

Another highlighted the benefit for them of a scripted curriculum:

> *So every month, [my coach] will observe me basically doing an intervention, like I'll have a student right here with me, my laptop in front of me and I do my normal thing. But just with her like taking notes, she fills out a whole like sheet for fidelity, making sure I do the interventions as they're told, or as it's like listed to do. ... And then we have basically a meeting just about what I just did.*

Scripted curricula can be helpful for tutors with less prior teaching experience as they provide specific guidance on tutoring session structure and content.

### 🔍 **Solution 4:** Facilitate communication between tutors and teachers

In some cases, conversation between teachers and tutors helped align the content of tutoring sessions with classroom instruction, strategically identifying gaps in student knowledge and working to address these across both settings. When tutoring was delivered virtually, tutors found it harder to interact with teachers as they are not crossing paths in person and described feeling isolated and unsure of students' classroom contexts. Due to this challenge, some virtual programs were working to implement additional strategies to foster tutor-teacher communication such as with regular email updates.

### 🔍 **Solution 5:** Develop strong resources that can be used across jurisdictions

Some states and regional organizations sought to support tutoring programs by creating vetted lists of strong curricular materials with a focus on small-group instruction; investing in the development of curricula for subject areas, grade levels, and student groups where existing materials are lacking; and developing virtual training modules on best practices in instruction for particular content areas (e.g. secondary math). Many districts described drawing on these resources to build out strong curricular plans and hoped to see additional resources developed in the future for more subjects and grade levels.

# Schedule Tutoring Sessions in the School Day

High-impact tutoring takes place at a frequency and duration that is developmentally appropriate and sufficient to meet students' learning goals. Programs were better able to meet these dosage requirements when tutoring was embedded into regular school day instruction. Within school tutoring was more likely to provide adequate dosage and consistent student attendance. However, schools encountered challenges with scheduling tutoring sessions into the school day, resulting in low frequency of sessions and delayed implementation.

The challenge presented by scheduling affects schools and grade levels differently. With elementary schools, where daily schedules are typically less regimented and more flexible, scheduling was less burdensome. Furthermore, many elementary school classrooms already have adult-supervised interventions embedded into day-to-day practice, which made tutoring sessions easier to integrate as a regularly scheduled classroom activity. One district administrator noted:

> *The majority of our [tutoring] schools are elementary. So we don't put the kids in a classroom by themselves, we have to have a person that supervising them…the school is quickly changing their schedule and making sure that when students are pulled, let's say in the library to be with their tutors, that we also still have someone that's supervising the kids while they're on the computer with our tutors.*

For secondary schools, scheduling tutoring with adequate frequency was a greater challenge. While teachers and school leaders were interested in having students meet with tutors, the difficulty of scheduling tutoring without competing with critical instructional periods affected staff buy-in. A school leader highlighted this challenge:

> *I will say we feel it's been more challenging to make things work in the high [secondary] school schedule, like just logistically… It's also just high [secondary] school content classes are like, this is Math 1, you need to know everything in Math 1 to get to like to be successful in Math 2. And so that just feels like there's more pressure. And so it's harder for teachers to be like, Sure, you can pull this kid out anytime to take like, No, I gotta teach them Math 1 and English 1, you know. So, just the scheduling of everything.*

To alleviate these challenges, some schools opted to implement tutoring as an after-school activity. While this freed tutoring from the constraints of the school day, after-school sessions encountered problems with student attendance more frequently than programs built into the school day. Low attendance, along with delayed rollout, also contributed to issues with students receiving adequate dosage over the school year, thereby limiting effects of the program.

### **Solution 1:** Create intervention blocks at secondary schools

Some schools had intervention blocks built into their school schedule so that students needing additional services had a time designated. These schools were better able to take up high-impact tutoring. More secondary schools, in particular, could adapt flexible intervention blocks into their schedule and build tutoring into the systems designed to support students with learning differences

### **Solution 2:** Incorporate tutoring into master scheduling plans

Scheduling issues often arose from tutoring entering the discussion after master schedules were constructed. Furthermore, the scheduling process often treated tutoring sessions as supplemental, instead of part of the regular instructional program. Referring to tutoring as a regular part of instruction not only benefits the process of scheduling but may also help with staff and student buy-in and destigmatize the intervention.

### **Solution 3:** Provide state-level support and guidance

Legislative efforts at the state level facilitated implementation of high-impact tutoring when they prioritized accelerated instruction and increased district urgency to engage in tutoring initiatives. Texas required tutoring for a large number of students, while Tennessee required it for a narrower group of students but strongly incentivized take up with additional state funds. Other states also offered support for initial and ongoing attempts to implement tutoring at scale by supplying a range of resources and guidance to mitigate administrative burden and scheduling challenges. For scheduling challenges more states could provide example master schedules for districts to adopt and support district leaders in identifying the best school time for tutoring.

# Data Use

When thoughtfully collected and utilized strategically, data can help educators identify students who could benefit the most from tutoring, empower tutors to personalize instructional content, and allow leaders to assess program implementation and effectiveness. However, many existing educational data systems lack the necessary information to inform tutoring programs.

Educators often hoped to promote educational equity by providing tutoring to students who were struggling academically and did not currently have the support needed to succeed. Many identified information on students' prior academic skills and performance as useful in identifying students for tutoring. However, state and district leaders struggled to provide specific guidance for utilizing student academic data given the wide range of assessments used by different schools. A state education leader told us:

> *We actually have almost 70...school districts in [our area]...And, you know, they all use different interim assessments...And you can't compare those assessments directly either as I think you're aware. So it's also hard for us to even give guidance about like, oh, well if your student is this far behind...there is the cutscore where they're the ones who should be getting tutoring...it's hard for us as a state to say that.*

Challenges also emerged when educators attempted to use existing data collection strategies to evaluate tutoring program implementation. While many districts collected school attendance data (i.e. whether students are present each day), fewer collected information about what types of instruction students receive during the school day. This lack of data made it challenging to understand whether students were receiving tutoring frequently, over an extended period of time, and meeting with a consistent tutor – hallmarks of a high-impact tutoring program implemented with fidelity.

Additionally, programs were often interested in understanding whether their tutoring effectively improves students' academic skills and socioemotional well-being. However, schools rarely designed their implementation with evaluation in mind from the start so that they could measure program effectiveness (NSSA, 2021).

🔍 **Solution 1:** Create systems to regularly interpret and apply student data

Educators facilitated the ongoing use of data to support tutoring instruction by creating systems and schedules to regularly interpret student data including data dashboards, formative assessments, and regular meetings to discuss student data with a range of program stakeholders. One district leader recognized that educators struggled to access data when determining which students should receive tutoring. To support this process, she created a data dashboard that included academic and attendance data for each student all on one page. She then used this tool in her discussions with educators. Another district convened regular data team meetings including school leaders, teachers, and tutors to discuss how students are performing and what adaptations should be made to their instruction:

> *I've mentioned that we have weekly data meetings, in which we're like, looking at progress monitoring, we're looking at, you know, our, our data, our monthly data, or every other week data...how are they doing in the classroom?...Are they still struggling?...So a lot of conversation with teachers a great deal of conversation around data, conversations with parents.*

Some tutoring providers built regular formative assessments into their tutoring curriculum. The tutors conducted the short assessments and then worked with students to plot their results over time. They then used this information to initiate conversations with students, teachers, and tutoring program leadership about their progress and plan for the pace and content of future instruction. As the tutoring provider described:

> *So student progress, it's tracked in our data management system. Every week the tutors give a short progress monitoring assessment. And they enter that score into the data management system. And we can see it builds a nice graph. So if we're talking about students who are working in connected text interventions, then it's tracking how many words per minute they're reading and how many errors they're making.*

Another provider noted how they use the data for instruction:

> *I weekly progress monitor each child to see where they're at, and that's just a one minute assessment, whether it be them telling me letter sounds, um, nonsense words ... the data from the weekly progress monitoring determined what intervention was given to the child.*

🔍 **Solution 2:** Utilize virtual tutoring platforms to collect program implementation data

Virtual tutoring provided a unique opportunity to collect program implementation data

by incorporating existing features of online conferencing and scheduling platforms. In particular, some virtual tutoring programs in our study collected data on when students were scheduled for tutoring, which sessions students actually attended, which tutor met with which student during a session, and how long sessions lasted. Importantly, programs that assigned unique identifiers for each student, tutor, and tutoring session could track students' tutoring dosage and the consistency of student-tutor match over time.

### 🔍 **Solution 3:** Plan early to assess program effectiveness

Not all districts identified the data needed upfront nor collected the necessary basic information to assess whether their tutoring program was working. For example, some districts in our sample did not track student attendance at the sessions. When considering what they wanted to know, most districts chose to track attendance and student learning outcomes from formative and summative assessments and student experience measures from surveys that they implemented multiple times during the course of the program.

These data were essential for assessing program effectiveness and making adjustments to the current program when needed. In order to convincingly measure program effects, districts also needed to design the program implementation so that they had a comparison group of students who were similar to those who received the tutoring. A number of districts in this study partnered with our research team to identify this comparison group and conduct studies of program effectiveness. New programs usually choose to do fast turnaround studies with a less convincing causal estimate of effectiveness so that they can use the information to improve, while well-established programs may want a stronger causal study that they can use to attract more funding and buy-in. The process of designing strong effectiveness studies usually spans multiple years and requires ongoing coordination between district leaders and the research team (NSSA, 2021).

# Student Attendance

High-impact tutoring can only improve student outcomes if students actually receive tutoring. Additionally, high-impact tutoring can only help address inequality in learning experiences if it reaches those students who need it most. Many districts in our sample were plagued by low attendance to tutoring sessions separate from attendance to school in general. While many factors negatively affected attendance, opt-in programs and programs that took place outside of school time experienced the most attendance challenges.

Opt-in tutoring, like opt-in educational resources in general, tends to have low take-up and has difficulty reaching the lowest performing and least engaged students (e.g., Robinson et al., 2022; White et al., 2022). For example, before or after school programs need parent/caregiver support for the additional time students spend at school, which is not feasible for many families. When one district administrator was asked to identify the greatest barrier to successful implementation, they shared:

> *I guess...it goes back to attendance. When we are looking at the group of kids that are participating, most often they are kids that tend to be a little more transient, the kids that kind of pop in and out of school districts and things like that. Or they're often called home – like they have to go home because they have to babysit their younger sister so their parents can go to work or whatever the case may be. So... attendance I think is the biggest barrier because when they're not here consistently, they're not consistently getting those extra skills to be able to move forward.*

Schools leaders' experiences also corroborate the attendance issues with programs delivered outside of school hours.

> *...[the tutoring provider] works at my school in the morning. And I think the kid would just come late every day. So by the time he got here, she was ...missing. But I will tell you, if this program was done after school, attendance would be an issue because when I run my own tutoring, it's like they come on Tuesday, not on Wednesday, then they're back on Thursday, then they skip a week, and then they come back. So it's like, you know, we have that something we have to fight all the time, when it's a [before or after school] tutoring program. That's not during the school day.*

Another challenge related to attendance to virtual tutoring sessions specifically was technical issues surrounding connectivity and hardware. In some cases, these technical issues were exacerbated in virtual tutoring sessions taking place from students' homes after school.

One principal shared:

> *...There were challenges with logging in for our students..everything was working well here when we did the test drive – when they got home, they had challenges accessing their tutor for a while.*

### 🔍 **Solution 1:** Embed tutoring during the school day

One strategy that districts used to address some of these attendance issues is embedding high-impact tutoring into the school day, where attendance does not depend on students' out-of-school schedules, resources, and internet connectivity. Because more engaged students are more likely to make the effort to take up tutoring offered outside of school than less engaged students, this approach can further differences in outcomes across students. Tutoring that is embedded during the school day can be targeted to the students with the highest need, better positioning it to increase equity in learning opportunities within the school.

### 🔍 **Solution 2:** Designate on-site personnel to support attendance and technical issues

Even tutoring programs delivered during school hours sometimes experienced attendance challenges, especially with virtual tutoring. Virtual tutoring often required students to go to separate computer rooms and log on to a virtual tutoring platform. The logistical and technical challenges associated with virtual tutoring meant that students would often not make it to the designated location for tutoring, or that they would not be able to log on to sessions. In these cases, it was beneficial if the school had identified individuals on site who could monitor attendance and support students to log on to sessions and troubleshoot in the case of technical difficulties. In some instances, this was existing school-level staff such as a librarian, instructional coach, or computer teacher; other districts or schools had separately hired tutoring coordinators to support successful implementation at the school level.

### 🔍 **Solution 3:** Proactively communicate with teachers about the tutoring schedule

While the benefits of embedding tutoring into the school day are clear, scheduling during school hours introduced a tension with activities planned by classroom teachers, who could be wary of relinquishing instructional time. To address this, some school leaders described the importance of clear and proactive communication with classroom teachers about the tutoring schedule so teachers could build this into their lesson plans. Additionally, clearly communicating to teachers that tutoring was meant to support rather than supplant their instruction created teacher buy-in, and positioned teachers as building-level supports for student attendance to tutoring sessions.

As described by one principal:

> *But anyway, what are the things that are within our control? Right, so...having a really thoughtful and effective tutoring schedule that teachers are all on board with and understand the value of like, Oh, if I don't let the student go now there's not another time the tutor can come back, right? And so just kind of getting that buy-in at the teacher level will give us a better baseline of dosage. And we are dealing with that challenge on top of the kid being absent, you know?*

## School-level Buy-in

School-level buy-in facilitates activities necessary for implementation across levels of school and district organizations. Even when district leaders believe tutoring is the best approach for accelerating student learning, school personnel must share this enthusiasm as many implementation activities occur at the school level. **Both limited school-level autonomy over implementation and minimal information solicited by the district from school leaders and teachers can reduce buy-in and lead to uneven program implementation and, subsequently, less effectiveness (Wohlstetter, Datnow, & Park, 2008).**

In some cases, implementation delays and unclear communication at the district level contributed to an erosion of school-level buy-in. For instance, hiring and procurement challenges delayed the start date by six months in one school district. By the time tutoring launched in January, teachers had already established systems for alternative interventions and opted to continue with them even after tutoring became available. One principal noted that a lack of guidance from the district further contributed to the issue of school-level buy-in:

> *"As principals, we weren't given a lot of information. And so, you know, had I known, like, could I collaborate with the tutor beforehand? Could I give the tutor some baseline data about those students? Like all of that are things that...are really necessary for tutoring..., that's kind of a district thing."*

Tutor providers and quarterback organizations believed that in some cases low levels of teacher buy-in affected tutors' ability to consistently meet with the same students. School leaders and supporting staff noted the need for more teacher incentives to ensure students attend tutoring sessions. Virtual tutors reported meeting as few as one time with a student in some cases and never successfully completing a tutoring session with others due to absences or technical difficulties. One reported:

> *"I don't see a lot of teacher support.... To me, it kind of feels like we're an imposition, taking their kids...I think we can do really well if the teachers buy in on it. I mean, I've been on both ends of it. You have to have teacher buy-in for it to work. I've had kids come in and then they go, Oh, my teachers calling me I have to go. And you know, our number one thing is there in the classroom, if the teacher has the say, but then I wonder why is the district spending so much money to do this if you're not gonna let the kids get the full advantage of it?"*

As a result, tutoring attendance was sporadic in schools with low levels of buy-in.

### 🔍 **Solution 1:** Foster a school-level belief in the efficacy of high-impact tutoring

The broad belief in high-impact tutoring as an effective approach to improving student outcomes promoted a sense of coherence within districts in our sample. One district leader stated: "The goal was to communicate, communicate, communicate: do we communicate with schools that what we want there is high-impact tutoring and high-impact tutoring meant?" Establishing a shared vision of overarching goals, programmatic elements, and intended outcomes of tutoring helped them to achieve effective implementation. Similarly, consistent communication of this vision and any changes that might occur over the year with stakeholder groups during the design and implementation phases (i.e., district- and school-level admins and staff, tutoring providers, tutors, and quarterback organizations) allowed educators to adjust and continuously improve implementation. Piloting with a smaller group of schools or students and providing examples of well-functioning programs helped some districts develop wider buy-in from other stakeholders.

### 🔍 **Solution 2:** Identify clear roles and processes including a lead at each school

School-level administrators indicated their roles and responsibilities in selecting students and monitoring their progress were unclear. Others were dissatisfied with the level of collaboration and communication with tutors and the student selection process. **With the competing demands and stretched capacities of educators, clearly identifying roles at the school and district levels helped implement tutoring with fidelity.** By creating structures for communication and collaboration, the tutoring provider and schools fostered school-level and circumvented implementation barriers early on. For example, some district and tutoring provider site leads tracked issues, troubleshot, and communicated strategies to key stakeholders at the school level. Schools that were most successful with alleviating these challenges designated a tutoring coordinator to ensure implementation on the ground.

Clarity of roles proved to be beneficial, not only during development but also throughout implementation. Invested principals and teachers prioritized high-impact tutoring as an intervention and assigned staff to help students log on and troubleshoot technical issues during scheduled sessions. Clear communication between school leaders and tutoring providers also promoted coherence between tutoring and teachers' classroom instruction, a key feature of effective tutoring (Robinson et al., 2021).

Overall, high-impact tutoring requires hiring new adults or assigning staff to different roles, shifting student schedules, new instructional materials often for less-experienced educators, and, when using virtual tutoring, working technology. School systems across the world are implementing this complex approach with concerted effort. As new jurisdictions and schools seek to emulate their success, keeping in mind the importance of all actors and, in particular, the importance of school-level educators, increases the likelihood of successful implementation.

Given the complexity of implementing high-impact tutoring, all tutoring programs faced barriers as they sought to adapt the approach to their context. However, districts we spoke with have seen significant improvements in program implementation over the first and subsequent years of tutoring.

# Looking ahead: implications

The body of evidence on the potential effectiveness of extended tutoring from a consistent tutor is unusually powerful. Across multiple studies and reviews of education interventions, researchers have found tutoring to have large, positive impacts on student achievement in both math and reading (Dietrichson, et al., 2017; Fryer, 2017). Tutoring programs can remain effective even as they expand to serve more students. For example, an analysis of fifteen larger-scale tutoring programs found that initiatives increased student learning by an average of 2-10 additional months (Nickow et al., 2020). However, not all tutoring programs are effective when implemented on a large scale. The details of the types of tutoring chosen and the implementation quality are both important for delivering benefits for students.

Studying tutoring implementation in response to pandemic-induced learning needs across school districts in the United States, we found both facilitators and barriers to effective implementation. While districts needed to train and provide materials for tutors; improve data systems for selecting students, aligning tutoring sessions with classroom concepts, and informing continuous program improvement; keep attendance high; and ensure school-level buy-in for implementing high-impact tutoring with quality, the biggest challenges facing districts were recruiting enough tutors and adjusting student schedules to include tutoring at least three days per week. Districts are still working on each of these, developing standing sources of tutors by partnering with local universities or community organizations and considering different scheduling approaches, including building tutoring into the systems they have designed to support students with learning differences. If the results from the current implementation of high-impact tutoring mirror the research findings, districts will be more likely to continue their focus on this approach and continue to iterate on the most effective implementation approaches.

While the implementation study that we describe focuses on districts within the United States, the findings may prove helpful in other contexts as well. U.S. school districts vary greatly in many dimensions including both the students that they serve and the policy context in which they operate. We designed the study across states in a range of large and small districts in urban and rural areas to understand implementation across contexts. As a result, some contributing districts operated with strong state controls and limited autonomy, while others operated with almost complete autonomy and minimal state direction. Some had strong and stable educator workforces and others routinely struggled to recruit. While all served a relatively high-poverty student population, districts varied meaningfully in their racial and ethnic composition, in their proportion of recent immigrants and multi-language learners, and in their academic achievement and school engagement. The common findings on barriers and facilitators across these contexts likely make the results relevant to broader stakeholders.

Moreover, high-impact tutoring has potential benefits far beyond the U.S. context. Stepping back, tutoring is likely more effective than large group instruction in classrooms for two reasons. First, tutoring develops strong adult-student relationships that motivate students. Second, tutoring targets instruction specifically to the areas in which students need help. The effectiveness of this approach spans many contexts, especially for students who are less engaged in school and need a supportive relationship to focus on learning. It is not surprising, then, that tutoring is gaining traction across the world.

Nonetheless, one of the key takeaways from our study of implementation is that implementation is not easy. Tutoring fits into some contexts more easily than others, even when it can be as effective in either setting. For example, in the places we studied, implementing and scheduling tutoring in secondary schools was more difficult than for elementary schools, even though tutoring has been shown to be unusually effective in improving secondary school math. As a result, educators in some contexts both within and outside of the United States will have an easier time implementing tutoring than others. Across locations, effective implementation will require leveraging local resources – especially available adults for tutoring and the instructional materials that facilitate engaging and impactful tutoring sessions – while keeping in mind that the key is to motivate students through human relationships and accelerate learning by targeting students' individual learning abilities. Securing buy-in across stakeholders will make implementing this intensive approach easier and far more likely to be successful.

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# Challenges and Solutions

## Scaling Tutoring Programs

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