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Once Efficacy Study Kindergarten, 2024–2025

Comparing the typical intervention toolkit to
students who received at least 80 sessions of Once



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PROGRAM DESCRIPTION

Once is an early-reading program that trains, equips, and coaches school support staff to deliver daily, scripted, evidence-based, one-on-one, in-person reading instruction to every targeted student. Previous research has shown that Once is particularly impactful as an intervention for students below grade level when at least 80 sessions occur. Once partnered with LXD Research to help educators understand the impact of Once tutoring. This report measures the outcomes from a district-wide, multi-school Once implementation in 2024-25 using the FastBridge literacy assessment.

STUDY DETAILS

Sample Description

- Sample:
 - 590 Kindergarteners in 11 schools
 - Below 50th National percentile at BOY
 - Demographics: 31% Black or African American | 55% Hispanic/Latino | 31% ELL | 12% SPED | 41% Economic Disadvantage
- Location:
 - Urban School District in the Southeast

Methodology

- Design: Quasi-experimental with
 - 114 students using Once for 80+ sessions
 - 454 students of comparison students
 - Students were selected for Once tutoring by the schools' own criteria
- Assessment Measure:
 - FastBridge Reading Composite Scores
- Statistical Controls: Fall reading scores, attendance, economic disadvantage, ELL status, SPED status, gender, race/ethnicity.

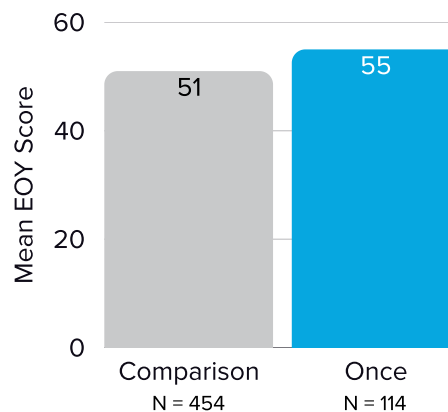
STUDY CONTEXT

Once partnered with an urban school district to provide tutoring to Kindergarteners in the 2024-2025 school year. Schools differed widely in how prepared students were for kindergarten. This study focuses on Kindergarteners who were below the 50th percentile nationally and completed 80 sessions or more throughout the year. The analysis helps us understand the impact of Once tutoring for striving readers who got tutoring an average of 2+ times per week. An overall reading measure, the FastBridge assessment, was used to measure the students' early literacy development.

PRELIMINARY FINDING

Kindergarteners below the 50th percentile at the beginning of year who used Once for 80 sessions or more outperformed comparison students on an end-of-year literacy assessment.

Kindergarteners' 24-25 FastBridge Composite Scores by Group



*This difference translates to approximately **2.7 additional months of reading growth** beyond typical Kindergarten progress.*

$p < .001$, Hedge's $g = .46$

Notes: Means are estimated marginal means after conducting random intercept model. Baseline equivalence on the BOY reading scores was met (Hedge's $g = .21$). Findings are preliminary and pending review.

STUDY DESIGN





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Efficacy of the *Once Early-Reading Program*

A Quasi-Experimental Study on the Effects of Tutoring on Early Literacy Outcomes Among Striving Readers

Conducted by **Rachel Schechter, Juliette Berg, Talia Patt, and Sofia Jimenez**, of [LXD Research](#)

Abstract

This quasi-experimental study examined the effectiveness of the *Once Early-Reading Program*, a paraprofessional-delivered, school-embedded one-on-one tutoring model, on foundational literacy outcomes for striving kindergarten readers. The sample included 748 kindergarten students who scored below the 50th percentile on the beginning-of-year literacy screener across 13 schools in a large urban Tennessee district during the 2024–2025 school year. Using multilevel models controlling for baseline reading scores, attendance, and student demographic characteristics, *Once* students demonstrated trend-level reading gains among all striving readers ($E.S. = 0.17$, $N = 748$), a statistically significant effect among students with high attendance ($E.S. = 0.20$, $N = 578$), and a stronger and statistically significant effect among students completing 80 or more sessions ($E.S. = 0.46$, $N = 568$). Residual gains analysis confirmed that session completion, not school attendance, drove academic gains, and a significant gender interaction indicated that the program effect was significant for girls but not boys despite similar session completion rates. These findings support the *Once* model as a promising, sustainable approach to high-impact early literacy tutoring at scale for striving readers.

Keywords: early literacy, foundational reading, paraprofessional tutoring, high-impact tutoring, Science of Reading, quasi-experimental design, FastBridge, kindergarten, first grade

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Introduction

Early reading proficiency is among the most consequential academic milestones a child can reach. Students who do not develop foundational literacy skills by the end of third grade face substantially elevated risks of grade retention, referral to special education services, high school non-completion, and limited long-term economic and social mobility (Hernandez, 2011). Despite decades of education reform, national data tell a persistent and sobering story: the 2024 National Assessment of Educational Progress (NAEP) found that only 31% of fourth-grade students performed at or above proficiency in reading — figures that fall below those recorded in 2005 and align closely with scores from 1992 (National Center for Education Statistics, 2024). The challenge has grown more acute in the years since the COVID-19 pandemic. Kindergarteners and first graders now begin school with measurably lower foundational skill levels than pre-pandemic cohorts, and phonological awareness continues to decline despite broader academic recovery efforts (Curriculum Associates, 2023). Achievement gaps affecting students from low-income families, students of color, and English learners remain pronounced, underscoring that the reading problem is not evenly distributed across the population (National Center for Education Statistics, 2024).

The Science of Reading offers a clear evidence-based pathway for addressing these challenges. A convergence of findings from cognitive science, neuroimaging research, and large-scale instructional studies points to the same core principles: proficient reading requires automatic word recognition built through systematic phonics instruction; explicit and sequenced teaching of phonemic awareness and phonics produces superior outcomes compared to implicit or whole-language approaches; and students at risk for reading difficulties benefit most from structured, intensive interventions delivered early (National Reading Panel, 2000; Rayner et al., 2001; Ehri, 2014). These findings are organized conceptually through frameworks such as the Simple View of Reading (Gough & Tunmer, 1986), which identifies word recognition and language comprehension as the two essential strands of skilled reading, and Scarborough's Reading Rope (2001), which illustrates how the many sub-skills of literacy must be woven together into automatic, fluent reading over time.

Educator Skills and Availability and Intervention Services

Knowing what works and delivering it at scale are two different problems. A persistent shortage of credentialed reading interventionists limits the reach of evidence-based instruction, particularly in under-resourced schools. The COVID-19 pandemic prompted an unprecedented federal investment in tutoring: across the United States, 40 states spent a combined estimated \$700 million in COVID relief dollars to expand tutoring programs, with local school districts projected to spend more than \$3 billion of their own pandemic aid on tutoring (Belsha, 2024). States including Arkansas (Tutoring Corps), Colorado (High-Impact Tutoring Program), and Louisiana (Accelerate)



developed statewide frameworks designed to reach large numbers of students, yet with more than \$120 billion in federal COVID relief funds now expired, the sustainability of these efforts has become a pressing question (Jacobson, 2026). After-school and parent-choice models have underperformed due to attendance barriers and inconsistent delivery, and externally contracted tutoring providers can carry per-student costs exceeding \$3,000 annually, making broad replication difficult for districts operating under fiscal constraints. Among all states, Tennessee stands out as the only one to have incorporated high-impact tutoring into its permanent K–12 funding formula (FutureEd, 2025), a relevant backdrop for this study, which was conducted in a large urban Tennessee district. The result nationally, however, is a widening gap between the interventions the research supports and what most schools can realistically sustain without a model that works within existing resources.

Student Attendance and Intervention Services

Compounding these challenges is the issue of student attendance, which directly shapes both access to and effectiveness of instructional interventions. In the years following the COVID-19 pandemic, chronic absenteeism—students who are missing 10% or more of school—grew among students across the United States. In the 2022–2023 school year, 20 states reported that more than 30% of their students missed at least 3 weeks of school (Chang, Balfanz, & Byrnes, 2025). These differences are comparatively large among economically disadvantaged learners, students with disabilities, students of different races and ethnicities, and English language learners, widening the already-existing achievement gaps (Dee, 2024; García & Weiss, 2018). Research indicates that students who are repeatedly absent are more likely to fall further behind academically and become disconnected from their peers and teachers (Swiderski et al., 2024). This is especially relevant in children’s early learning years, with research showing that children who are chronically absent between preschool and second grade are less likely to read at grade level by third grade (Ehrlich, Gwynne, & Allensworth, 2018).

The implications of these attendance patterns are particularly significant for interventions such as tutoring, where effectiveness depends on consistent participation over time. High-impact tutoring frameworks further inform this evidence base. The National Student Support Accelerator’s design principles identify consistent tutor-student relationships, school-day delivery, data-informed instruction, high frequency (three or more sessions per week), and standards-aligned materials as the hallmarks of tutoring that produces meaningful academic gains (White et al., 2021). Together, these principles underscore that tutoring is most impactful when delivered with sufficient dosage and consistency—conditions that can be difficult to achieve when student attendance is variable. This is especially true in early literacy, where young, at-risk readers benefit from predictable, scaffolded instructional routines that require sustained engagement over time.

A key challenge within this context is how to deliver high-quality, consistent tutoring in ways that are both scalable and embedded within the school day. One proposed solution lies within



schools' existing walls. Research has demonstrated that trained paraprofessionals, classroom aides, and support staff already employed by schools can deliver structured, one-on-one reading instruction that produces significant gains in early literacy, including for English learners and students from low-income backgrounds. Vadasy and Sanders (2010) conducted a randomized trial in which low-skilled kindergarteners received 18 weeks of supplemental, phonics-based instruction from trained paraprofessionals. Students in the treatment condition significantly outperformed controls at posttest across alphabetics, word reading, spelling, passage reading fluency, and comprehension, with average treatment effects of $d = .83$. Importantly, the intervention was effective for both native English speakers and language minority students, with only modest differences in responsiveness across groups. Similarly, Vadasy, Sanders, and Peyton (2006) demonstrated that paraprofessional-supplemented instruction in structural analysis with decodable text practice produced significant gains in word reading accuracy and reading efficiency for second and third graders at risk for reading problems. A subsequent meta-analysis by Jones et al. (2021) examining paraprofessional-led supplemental reading interventions found a mean effect size of 0.55 across outcomes, with particularly strong effects for spelling and decoding, suggesting that involving paraprofessionals as reading interventionists is not a workaround but a genuinely promising strategy for reaching struggling readers at scale.

Program Description

The *Once* Early-Reading Program was founded in 2021 and currently serves nearly 3,500 students across multiple school districts nationwide. The program's central model is both logistically pragmatic and pedagogically grounded: rather than importing external tutors or relying on after-school attendance, *Once* trains existing school paraprofessionals, staff who already know the school, the culture, and often the students, to deliver daily, one-on-one, structured literacy instruction to targeted PreK, kindergarten, and first-grade students.

Once aligns directly with the [National Student Support Accelerator](#)'s design principles for high-impact tutoring. Each student works with a consistent tutor for the full school year, receiving 15-minute one-on-one sessions five days per week, a dosage exceeding the three sessions per week standard typically associated with high-impact tutoring (White et al., 2021). Tutoring occurs during the school day and within the school building, removing transportation and scheduling barriers that undermine after-school models. Paraprofessionals receive an initial two-session training focused on program logistics and technology, followed by weekly 30-minute video-conference coaching sessions in which a consistent coach reviews recordings of the tutor's sessions and provides targeted instructional feedback. This coaching model reflects evidence that ongoing, job-embedded professional development produces greater instructional improvement than one-time training events (Darling-Hammond et al., 2017).



The curriculum itself is built on the Science of Reading and structured around both strands of the Simple View of Reading. Instructional content addresses the word-recognition strand through systematic phonemic-awareness activities, orthographic mapping, phonics and decoding sequences, and sight word instruction. The language-comprehension strand is supported through vocabulary development, morphological study, and syntactic analysis. Lessons are scripted and delivered via a laptop interface, enabling paraprofessionals without specialized reading-instruction backgrounds to deliver high-quality, sequenced lessons with fidelity. Decodable texts are integrated throughout, allowing students to apply newly learned phonics skills in independent reading at carefully controlled levels of complexity (Price-Mohr & Price, 2020). The program is designed not as a replacement for core classroom literacy instruction but as a supplemental tier that intensifies skill development for the students who need it most.

A real-time data portal provides tutors, coaches, and school administrators with access to student participation metrics and performance indicators, enabling ongoing data-informed decision-making. Schools designate a point person to coordinate logistics, ensure student safety, and maintain alignment between the *Once* program and the school's broader literacy efforts. This embedded accountability structure reflects implementation science research, which emphasizes that administrative support and monitoring are critical to sustaining educational interventions with fidelity (Fixsen et al., 2005; Durlak & DuPre, 2008).

Study Context

This study was conducted during the 2024–2025 academic year in partnership with a large urban school district in Tennessee. The district serves a student population with significant demographic diversity and elevated rates of economic disadvantage compared to nationwide rates. As a district committed to equity in early literacy outcomes, it has been an active partner in implementing evidence-based reading interventions at scale.

The *Once Early-Reading Program (Once)* was implemented in a subset of the district's elementary schools during the 2024–2025 school year, with paraprofessionals delivering daily one-on-one literacy tutoring to kindergarten students who were identified as needing foundational reading support. The study examined beginning-of-year (BOY) and end-of-year (EOY) reading performance as measured by the FastBridge assessment system (Renaissance Learning), focusing specifically on students who scored below the 50th percentile at BOY (striving readers), the population most directly targeted by the *Once* intervention.

The dataset provided by the school district comprised 24 district elementary schools with available FastBridge data. Of these, 13 schools had both *Once* students (treatment group) and non-*Once* students (comparison group), and formed the basis of the analysis. Ten additional schools had no *Once* students and were excluded, and one school was excluded because all



students had received *Once*, leaving no within-school comparison group. This study focuses on students who were most in need of intensive support, as determined by their beginning-of-year literacy screener (below the 50th percentile). All students in the 13 eligible schools who had both BOY and EOY FastBridge scores were included in the analytic sample, without additional matching or selection, as groups demonstrated baseline equivalence on the BOY assessment.

Research Questions

This study was guided by the following research questions:

RQ1: Does the *Once Early-Reading Program* produce significantly greater end-of-year reading outcomes, as measured by the FastBridge Early Reading Composite Score, for striving readers, compared to similar students in the same schools who did not receive *Once* tutoring?

RQ2: Among striving readers who were not chronically absent (defined as missing 10% or more of enrolled school days) during the 2024–2025 school year, does participation in the *Once Early-Reading Program* produce significantly greater end-of-year reading outcomes compared to non-tutored peers in the same schools?

RQ3: Does the impact of the *Once Early-Reading Program* differ across key student subgroups, including boys and girls, students receiving special education services, students qualifying for free or reduced-price lunch?

RQ4: Among striving readers who received 80 or more tutoring sessions with *Once*, the dosage threshold associated with meaningful reading gains in prior correlational research, do students demonstrate significantly greater end-of-year reading outcomes compared to non-tutored peers in the same schools?

RQ5: Among striving readers, what was the relationship between attendance and receiving at least 80 tutoring sessions in *Once*?

Method

Research Design

This study employed a quasi-experimental design to estimate the impact of the *Once Early-Reading Program* (*Once*) on foundational reading outcomes for students in a large urban Tennessee district during the 2024–2025 school year. Paraprofessionals delivered 15-minute, one-on-one tutoring sessions to targeted kindergarten students five days per week during the school day. Tutors received weekly 30-minute coaching sessions throughout the year, in which a



consistent coach reviewed video recordings of sessions and provided targeted instructional feedback. The design compared end-of-year (EOY) reading performance on the FastBridge assessment between students who received *Once* tutoring (treatment group) and students in the same schools who did not (comparison group), while controlling for beginning-of-year (BOY) FastBridge scores, student demographic characteristics, and attendance.

Measures

FastBridge Early Reading English Composite Score

To evaluate academic progress, this study used the Early Reading English Composite Score from the FastBridge Formative Assessment System for Teachers (FAST™), developed by Renaissance Learning. FastBridge is a comprehensive K–12 assessment system that integrates computer-adaptive testing, curriculum-based measures (CBMs), and behavior rating scales to support universal screening and progress monitoring within Multi-Tiered Systems of Support (MTSS) frameworks (Renaissance Learning, 2023). The system assesses a wide range of foundational and advanced reading skills, including phonological awareness, phonics, reading fluency, vocabulary, and comprehension, and provides norm-referenced benchmarks and growth metrics with documented evidence of reliability, validity, and predictive accuracy for academic outcomes (Renaissance Learning, 2023). The Early Reading English Composite Score aggregates performance across multiple reading subdomains into a single, norm-referenced composite that is sensitive to growth across the early grades.

The analytic sample was restricted to students who scored below the 50th percentile on the BOY FastBridge assessment, consistent with the target population for the *Once* intervention. The team from *Once* was in close contact with district and school leadership throughout the study, but no formal qualitative data were collected.

Baseline Equivalence

Baseline equivalence was established between the treatment and comparison groups' striving readers on the BOY FastBridge Early Reading English Composite Score using standardized mean differences (Hedges' g). As shown in Table 1, the Hedges' g value for the primary and secondary analytic samples fell within the What Works Clearinghouse (WWC) acceptable range for equivalence ($|g| \leq 0.25$), indicating that the groups were comparable at the start of the school year on the primary outcome measure (Hedges' $g = 0.13$, $p = .106$). BOY FastBridge Early Reading Composite Scores were included as a covariate in all impact estimation models, consistent with WWC standards for statistical adjustment (What Works Clearinghouse, 2022).

*Table 1. FastBridge Early Reading English Composite Score Beginning-of-Year (BOY) Descriptives*

Sample	Condition	BOY Mean	BOY SD	N (% of All)	Hedges' <i>g</i>	Equivalent?
All Student Sample	Treatment	27.65	2.59	206	0.13	Yes
	Comparison	27.30	2.87	542		
High Attendance Sample (Greater than 90% Attendance)	Treatment	27.73	2.63	159 (77%)	0.17	Yes
	Comparison	27.25	2.9	419 (77%)		

Note. Hedges' *g* is computed as the standardized mean difference between treatment and comparison groups on the BOY composite score.

Attrition Rate

The attrition rate between the BOY and EOY FastBridge assessments was 0.9%, with a differential attrition rate of 1.3 percentage points. Differential attrition was below the 15% threshold considered acceptable without potential for bias (WWC, 2022), indicating that observed attrition does not pose a meaningful threat to internal validity.

Table 2. Attrition for the Two Primary Samples

Sample	Condition	BOY N	EOY N	Attrition %	Below 15%?
All Student Sample	Treatment	206	206	0	Yes
	Comparison	549	542	1.3%	
High Attendance Sample	Treatment	159	159	0	Yes
	Comparison	423	419	0.9%	



Demographics

Demographic characteristics of the treatment and comparison groups in the All Students sample are presented in Table 3. While groups demonstrated baseline equivalence on BOY FastBridge reading scores, meaningful demographic differences were present and were controlled for in all analytic models. Notably, the treatment group had higher proportions of Black or African American students and economically disadvantaged students, while the comparison group had higher proportions of English Learners and Hispanic/Latino students.

Table 3. Student Demographic Characteristics by Condition

Student Characteristic	Treatment (<i>n</i> = 206)	Comparison (<i>n</i> = 542)	Hedges' <i>g</i>
Economically Disadvantaged	52.9%	41.1%	0.24
English Learner	43.2%	65.1%	-0.45
Special Education	10.2%	13.3%	-0.09
Black or African American	45.6%	26.2%	0.43
Hispanic or Latino	41.3%	59.6%	-0.37

Note. Effect sizes are reported as Hedges' *g*. Economic disadvantage, English Learner, and Special Education differences were evaluated using t-tests; race/ethnicity differences were evaluated using chi-square tests. The Hedges' *g* for demographic profiles remained below .50 for all categories in the High Attendance Sample, except for ELL, which was .51.

Analysis Plan

Quantitative Analysis

To estimate the impact of the *Once Early-Reading Program* on student reading achievement, students' EOY FastBridge Early Reading English Composite Scores were analyzed using multilevel models with students (Level 1) nested within schools (Level 2), implemented as random intercept models using restricted maximum likelihood estimation. Multilevel modeling was selected to account for the non-independence of students within the same school and to partition variance attributable to school-level clustering. Classroom identifiers were not available for all students in the dataset; school was therefore used as the clustering unit.

The key predictor in all models was a binary indicator of whether the student received the *Once* program (treatment = 1, comparison = 0). All models controlled for students' BOY FastBridge Early



Reading Composite Scores, average daily attendance, economically disadvantaged status (i.e., eligibility for free or reduced-price lunch), English Learner status, special education status, gender, and race/ethnicity.

Effect sizes were computed as Hedges' g to provide a standardized and interpretable measure of practical significance (see the Appendix for additional details). To further contextualize effect sizes, they were translated into estimated additional months of learning following the recommendations of Lipsey et al. (2012) and Hill et al. (2008), which compare observed effect sizes to normative annual growth estimates by subject and grade. Reference values from Table 5 of Lipsey et al. (2012) were used for this purpose. A full explanation of the calculation and conversion table is provided in the Appendix.

Study Results

All Student Sample

Students who received *Once* outperformed comparison peers at the end of the school year, after controlling for baseline reading scores, attendance, student demographic characteristics, and school-level clustering ($\beta = 1.46$, $p = .06$, Hedges' $g = 0.17$). While this difference did not reach conventional thresholds for statistical significance, the direction and magnitude of the effect are consistent with a positive, meaningful trend. The estimated marginal mean EOY composite score for *Once* students was 53.27, compared to 51.81 for comparison students, corresponding to 1.3 additional months of growth (full model in the appendix).

Table 4. Multilevel Model Comparing FastBridge EOY Early Reading Composite Scores: Students Below 50th Percentile Nationally at BOY

Condition	n	EOY Mean*	Unadjusted ICC	Adjusted ICC	Beta	p-value	Effect Size (in Hedges' g)
Comparison	542	51.81	0.09	0.13	1.46	0.06	0.17
Treatment	206	53.27					

Notes: *Means are estimated marginal means after conducting a random intercept model.

The model controls for the following student covariates: fall reading scores, attendance, economic disadvantage, ELL status, SPED status, gender, race/ethnicity. The sample is restricted to treatment students who were below the 50th percentile nationally on FastBridge at BOY ($N = 13$ schools), and had both fall and spring reading scores. The model uses a random intercept model. Baseline equivalence on the BOY reading scores was met (Hedges' $g = .13$).



Subgroup Impacts

Subgroup analyses revealed a significant gender interaction ($b = 2.87$, $p = .046$), indicating that the treatment effect differed significantly for boys and girls. Among girls ($n = 110$ treatment, $n = 269$ comparison), treatment students scored significantly higher than comparison students on the spring reading assessment (adjusted means: 53.7 vs 50.9, $b = 2.76$, $SE = 1.02$, $p = .007$). In contrast, among boys ($n = 96$ treatment, $n = 273$ comparison) no significant treatment effect was observed (adjusted means: 52.3 vs 52.9, $b = -0.53$, $SE = 1.19$, $p = .657$). Although boys and girls received a similar number of sessions, on average (82.2 vs. 84.5), girls appear to have responded more strongly to each additional session, as evidenced by a strong and significant dose-response relationship among girls ($r = 0.37$, $p < .001$) but not among boys ($r = 0.17$, $p = .109$). Sessions completed accounted for 14% of the variation in girls' spring reading scores, compared to just 3% for boys, suggesting that for girls, program dosage was a meaningful and consistent driver of outcomes, while for boys, other factors played a larger role.

There were no significant differences by special education status, economic disadvantage, or English language learner status.

High Attendance Sample

For the high attendance sample, students who received Once outperformed comparison peers at the end of the school year, after controlling for baseline reading scores, attendance, student demographic characteristics, and school-level clustering ($\beta = 1.75$, $p = .047$, Hedges' $g = 0.20$). The estimated marginal mean EOY composite score for *Once* students was 54.8, compared to 53.1 for comparison students (see Figure 1), corresponding to 1.6 additional months of growth (full model in the appendix).

Table 5. Multilevel Model Comparing FastBridge EOY Early Reading Composite Scores: Students Below 50th Percentile Nationally at BOY and Above 90% Attendance

Condition	n	EOY Mean*	Unadjusted ICC	Adjusted ICC	Beta	p-value	Effect Size (in Hedges' g)
Comparison	419	53.1	0.12	0.15	1.75	.047	0.20
Treatment	159	54.8					

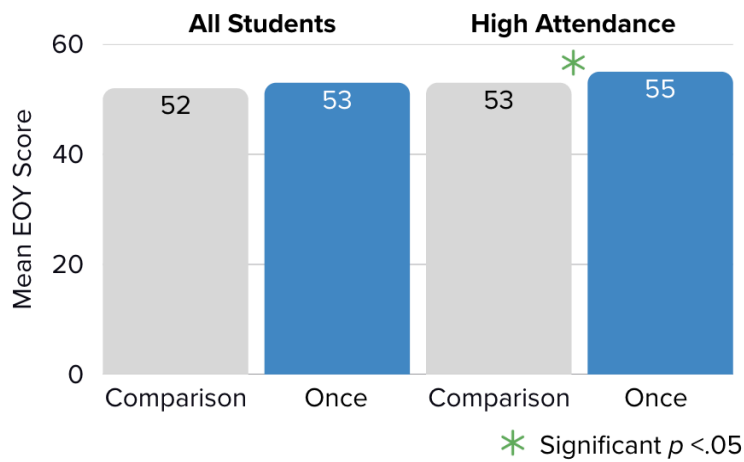
Notes: *Means are estimated marginal means after conducting a random intercept model.

The model controls for the following student covariates: fall reading scores, attendance, economic disadvantage, ELL status, SPED status, gender, race/ethnicity. The sample is restricted to treatment and comparison students who were below the 50th percentile nationally on FastBridge at baseline, who had higher than 90% attendance during the school year, and who had both fall and spring reading scores. The



school sample was restricted to schools that had both treatment and comparison students (N = 13 schools). The model uses a random intercept model. Baseline equivalence on the BOY reading scores was met (Hedges' $g = .17$). The treatment group was more economically disadvantaged than the comparison group (Hedges' $g = .17$) and had more students who were Black (Hedges' $g = .38$), whereas the comparison group had more students who were ELL (Hedges' $g = -.49$) and more students who were Hispanic (Hedges' $g = -.40$).

Figure 1. End-of-Year FastBridge scores for Primary Samples (Estimated Marginal Means)





Dosage Analysis: Striving Readers with 80 or More Sessions

To examine whether program dose was associated with greater reading gains, a secondary analysis was conducted among treatment students who completed 80 or more *Once* sessions alongside all comparison students in the same schools. Among this higher-dosage subsample, students in *Once* schools demonstrated significantly greater EOY reading composite scores than comparison students ($\beta = 3.90$, $p < .001$, Hedges' $g = 0.46$), with estimated marginal means of 54.93 for treatment students and 51.03 for comparison students across 11 schools. Meeting the 80-session threshold corresponded to an additional 3.6 months of growth, over double the impact of the high-attendance model. Residual gains analysis supported the 80 or more session threshold. Students below the threshold underperformed relative to the comparison group trajectory, whereas students above the threshold performed 2.3 points above predicted levels, with 60.1% exceeding expectations. These findings led the research team to investigate the relationship between high attendance and dosage, to understand how attendance impacted *Once* session completion.

Table 6. Multilevel Model Comparing FastBridge EOY Early Reading Composite Scores: Students Below 50th Percentile Nationally at BOY and Who Received 80+ Sessions

Condition	n	EOY Mean*	Unadjusted ICC	Adjusted ICC	Beta	p-value	Effect Size (in Hedges' g)
Comparison	454	51.03	0.11	0.15	3.90	< .001	0.46
Treatment	114	54.93					

Notes: *Means are estimated marginal means after conducting random intercept model.

The model controls for the following student covariates: fall reading scores, attendance, economic disadvantage, ELL status, SPED status, gender, race/ethnicity. The sample is restricted to treatment students who did at least 80 sessions and comparison students in those schools (N = 11 schools), students who had both fall and spring reading scores, and students below the 50th percentile nationally at BOY. The model uses a random intercept model. Baseline equivalence on the BOY reading scores was met (Hedges' $g = .21$), but the difference was statistically significant, favoring the treatment group.

FastBridge Achievement Benchmark Categories

To supplement the continuous outcome analyses, students' percentile scores were grouped into four quartile bands: the 1st–25th, 26th–50th, 51st–75th, and 76th–100th percentiles. A chi-square test examined whether the distribution of quartile movement from BOY to EOY differed between conditions. Because the analytic sample was restricted to striving readers scoring below the 50th percentile at BOY, all students began the year in either the bottom or second-lowest quartile



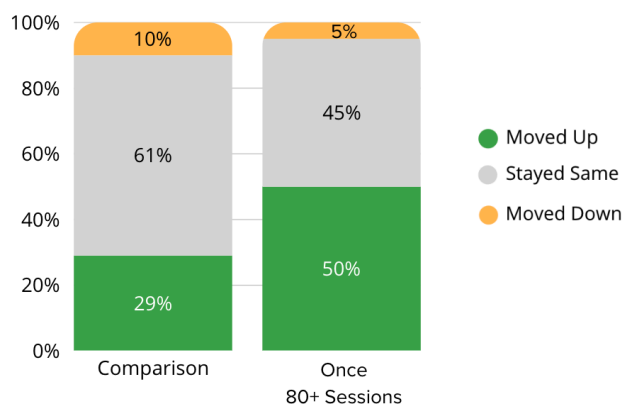
band. Movement upward into the 51st–75th or 76th–100th percentile ranges, therefore, represents meaningful normative progress — the kind of gain that shifts a student's standing relative to national peers, not simply growth within a struggling band.

Movement was categorized as moved up (student's EOY quartile band was higher than their BOY band), stayed the same (student remained in the same band), or moved down (student's EOY band was lower than their BOY band).

Among all striving readers, the distribution of quartile movement did not differ significantly between treatment and comparison students ($\chi^2(2) = 1.03$, $p = .599$), consistent with the modest trend observed in the primary multilevel model for this sample.

Meaningful and significant differences are seen after dosage is taken into consideration. Fifty percent of *Once* 80+ students moved up vs. 29% of the comparison students, the distributional difference remained significant ($\chi^2(2) = 19.15$, $p < .001$). These results align closely with the continuous outcome findings and reinforce that reaching the dosage threshold is associated not only with higher mean scores but with a meaningfully different pattern of normative movement.

Figure 2. FastBridge Achievement Quartile Movement for Students Below 50th Percentile Nationally at BOY and Who Received 80+ Sessions



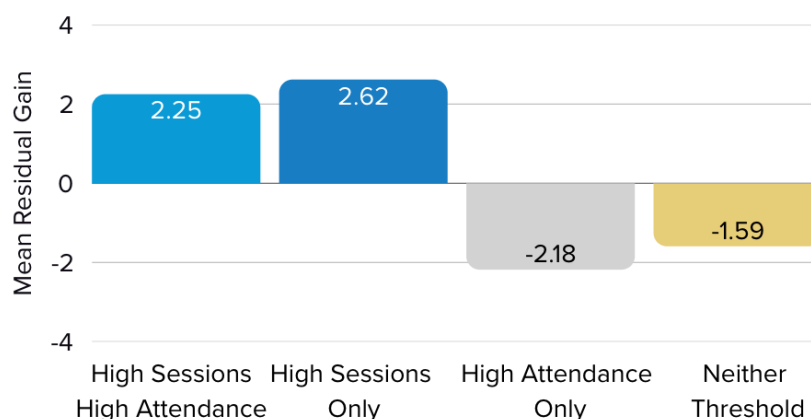


The Relationship between Attendance and *Once* Sessions

To examine whether attendance moderated the dose-response relationship, treatment students were classified by both sessions (80+ vs. below 80) and attendance (90%+ vs. below 90%). Results confirmed that meeting the program dosage threshold of 80 sessions, not attendance, was the primary driver of residual gains. Students completing 80 or more sessions showed positive residual gains regardless of attendance status (80+ sessions with 90%+ attendance: mean residual = 2.25; 80+ sessions only: mean residual = 2.62), while students with fewer than 80 sessions showed negative residual gains regardless of attendance (90%+ attendance only: mean residual = -2.18; neither threshold met: mean residual = -1.59). These findings suggest that active program engagement, as measured by completed sessions, is the critical factor in program effectiveness rather than school attendance per se.

The residual gain analysis makes clear that within the treatment group, attendance is not the determining factor in outcomes; what matters is the number of sessions. These two findings are actually consistent rather than contradictory.

Figure 3. Mean Residual Gains for Students Who Received Once by Session and Attendance Group Membership



Discussion

Taken together, the findings from this study present a coherent and encouraging picture of the *Once Early-Reading Program's* potential to accelerate foundational literacy development for striving readers in kindergarten. Across all analytic samples, the direction of the treatment effect was positive and consistent, with effect sizes that increased predictably with program engagement. Among all striving readers who scored below the 50th percentile at baseline, *Once*



students outperformed comparison peers at end of year ($g = 0.17$), a difference that approached—but did not reach—conventional thresholds for statistical significance ($p = .06$). When the sample was restricted to students with attendance rates above 90%, the effect strengthened ($g = 0.20$) and crossed the significance threshold ($p = .047$). Most strikingly, students who completed 80 or more *Once* sessions demonstrated end-of-year reading composite scores that were significantly higher than comparison peers, yielding a practically meaningful effect size of $g = 0.46$ ($p < .001$). These findings are consistent with and extend the growing evidence base for paraprofessional-delivered reading intervention: Jones et al.'s (2021) meta-analysis of supplemental reading programs implemented by paraprofessionals found a mean effect size of 0.55 across outcomes, and the progressive dose-response pattern observed here aligns with prior work by Vadasy and Sanders (2010), in which 18 weeks of structured, phonics-based paraprofessional tutoring produced an average effect of $d = 0.83$ for low-skilled kindergarteners.

The subgroup analyses add an important layer of nuance to this dosage story. The treatment effect was significant for girls ($g = 0.17$ favoring treatment, $p = .007$), but not for boys, despite boys and girls completing a similar average number of sessions (84.5 vs. 82.2). The dose-response relationship was strong and significant among girls—sessions completed accounted for 14% of the variation in girls' spring reading scores—but was not significant among boys, for whom sessions explained only 3% of the variance. This suggests that for girls, program dosage was a meaningful and consistent driver of outcomes, while for boys, other factors played a larger role. What those factors are is not answerable from this dataset alone, and understanding what moderates boys' literacy outcomes from one-on-one structured tutoring, whether instructional, relational, or contextual, is an important direction for future research.

Across the remaining subgroups, the pattern was notably consistent. Special education status, economic disadvantage, and English learner status did not significantly moderate the treatment effect; the program did not work meaningfully better or worse depending on students' membership in any of these groups. Given that there were some demographic differences between treatment and comparison groups at baseline, this is a substantive finding in its own right. It suggests that *Once*'s structured, one-on-one model produced broadly comparable results across a demographically diverse population of striving readers, rather than driving gains primarily for one subgroup.

An important feature of the study context deserves attention when interpreting these effect sizes. This research was conducted in a large, active urban Tennessee district during the 2024–2025 school year, a setting in which comparison-group students were almost certainly receiving other literacy supports as part of the district's broader instructional infrastructure. In quasi-experimental studies of this kind, the comparison condition is rarely a true absence of intervention; rather, it reflects the district's ongoing instructional practice. To the extent that comparison students were receiving supplemental literacy instruction, the treatment effects reported here are likely



conservative estimates of *Once*'s impact relative to a true no-treatment baseline. The magnitude of the effect, particularly in the high-dosage subsample, is therefore notable precisely because it was achieved in the presence of a relatively active comparison condition.

The finding that dosage was a major driver of gains warrants particular attention, as it aligns with prior research on the *Once* program and reflects a broader pattern observed in the implementation literature. The 80-session threshold examined in this study was not selected arbitrarily; it was derived from a convergent body of earlier correlational work on the *Once* program across multiple assessment systems and implementation contexts. Studies using FastBridge, AIMSweb, and i-Ready assessments consistently found that students completing fewer than 70-80 sessions had smaller gains, while those completing 80 or more sessions showed progressively larger gains (Jimenez & Schechter, 2024a; Jimenez & Schechter, 2024b; Cleghorn, Jimenez, & Schechter, 2025). In the AIMSweb study, students averaged 78 sessions and demonstrated strong early literacy gains; the i-Ready study, with an average of 89 sessions, showed a similar pattern. The FastBridge correlational work found the dose-response relationship held especially clearly for students who began below the 50th percentile nationally, where gains reached +24 percentile points at the 120+ session level.

The present quasi-experimental study replicates and extends that dose-response pattern under more rigorous analytic conditions, moving beyond correlational observation to a controlled comparison that accounts for baseline reading levels, demographics, attendance, and school-level clustering. The residual gain analysis conducted reinforces the picture further: students completing 80 or more *Once* sessions showed positive residual gains regardless of attendance status, while students with fewer than 80 sessions showed negative residual gains regardless of attendance. This finding clarifies the mechanisms at work determining outcomes: active program engagement, measured in completed sessions rather than school attendance. The attendance filter in the impact model appears to function primarily as a noise-reduction device, producing more comparable treatment and comparison groups by disproportionately excluding lower-engaging treatment students, rather than isolating attendance as a causal mechanism.

This interpretation is further supported by considering what happens to comparison-group students when they miss school. Research has consistently documented that supplemental reading interventions are vulnerable to the same attendance and scheduling disruptions that affect student participation more broadly. In a prior study examining reading implementation in a large urban district in Florida, students were expected to complete between 8 to 10 instructional stations per week; in practice, they completed an average of only 4.5 stations, less than half the intended dosage, due to student absences, teacher absences, holidays, and scheduling conflicts (Schechter, Chase, & Lynch, 2024). Because the program was designed for 4 stations per day, this



amounted to approximately one-quarter of the recommended daily instructional dose. When comparison students in the present study were absent, they were likely also missing the supplemental supports their schools had in place. It is possible that making *Once* a school-embedded, within-the-school-day delivery model was not only a logistical convenience but also a structural advantage. Attendance may also serve as a proxy for broader familial and contextual factors, particularly in kindergarten, where the pressures that keep young children home from school are often the same ones that complicate academic engagement more generally. The practical implication is significant: a program that removes transportation barriers, occurs within the school day, and pairs students with a familiar adult from their own school building is structurally positioned to reach children who might otherwise fall through the gaps of after-school or externally contracted models.

A broader question worth examining in future research concerns how students come to be selected for *Once* in the first place. This study did not include qualitative methods, such as teacher surveys or interviews with school staff, that would have shed light on how placement decisions were made. For example, it is not clear why the treatment group had fewer students who were English language learners than the comparison group. In this urban district, daily one-on-one tutoring is one of several Tier 2 and Tier 3 options available for students who need additional support; others typically include small-group intervention, pull-out services, or additional specialist time. The decision to place a particular student in one-on-one tutoring rather than small-group instruction may reflect several factors, including the student's academic needs, whether an individual setting is likely to be more effective given other challenges, and whether that arrangement allows the classroom teacher to work more effectively with the remaining students. Understanding more about how schools and teachers make these placement decisions, and whether certain student profiles respond especially well to the structured, relational consistency of daily one-on-one tutoring, would enrich both the interpretation of findings like these and the practical guidance offered to schools implementing the program.

Limitations

Several limitations should be considered when interpreting the findings of this study. First, as a quasi-experimental design, this study cannot rule out all sources of selection bias. Although the treatment and comparison groups demonstrated baseline equivalence on BOY FastBridge Early Reading Composite Scores, meaningful demographic differences were present between groups; notably, the treatment group had higher proportions of economically disadvantaged and Black or African American students, while the comparison group had higher proportions of English Learners and Hispanic or Latino students. These differences were controlled for in all analytic models, but unmeasured factors may still have influenced outcomes.



Second, the dosage subsample (treatment students with 80 or more sessions) had a baseline difference that, while within the What Works Clearinghouse equivalence threshold (Hedges' $g = 0.21$), was statistically significant and favored the treatment group. This means the dosage analysis should be interpreted as exploratory and directionally informative rather than as a definitive causal estimate. Beginning-of-year scores were included as a covariate to address this difference, but confounding factors cannot be fully ruled out.

Third, classroom identifiers were unavailable for all students in the dataset, precluding a three-level model that nests students within classrooms within schools. Using school as the sole clustering unit may not fully account for classroom-level variation in instruction or teacher effects, and future replications would benefit from classroom-level data to allow for more precise partitioning of variance.

Finally, findings reflect a single large urban Tennessee district during the 2024–2025 school year. Tennessee is the only state to have incorporated high-impact tutoring into its permanent K–12 funding formula (FutureEd, 2025), which may reflect an unusually supportive policy environment for tutoring implementation. Results may not generalize to districts in different policy contexts, grade configurations, or demographic settings, and replication across a broader range of implementation sites will be important for establishing the robustness of these findings.

Conclusion and Next Steps

This study provides meaningful evidence that the *Once Early-Reading Program* can produce positive literacy outcomes for striving kindergarten readers when delivered with sufficient fidelity and dosage. The progressive dose-response pattern, from a positive trend in the full sample to a statistically significant and practically meaningful effect ($g = 0.46$) among students completing 80 or more sessions, points toward program engagement as the central driver of academic gains. These findings are particularly notable given the active instructional context in which they were achieved: in a large, well-resourced urban district where comparison students were almost certainly receiving other literacy supports, *Once* still produced measurable advantages for students who engaged with the program consistently. For a model that is designed to operate within schools' current resources—including training existing school staff rather than relying on external specialists—this is a particularly meaningful result.

The findings also carry practical implications that extend beyond this single district. As federal COVID relief funding has expired and the durability of pandemic-era tutoring investments has come under pressure, the question regarding which tutoring models can survive without extraordinary resources has grown urgent (Belsha, 2024). *Once's* school-embedded approach—positioning tutoring within the school day, with familiar staff, and in a setting that reduces the attendance barriers that often undermine after-school models—represents one



plausible answer to that question. Future research should examine *Once's* effects across a broader range of districts and grade levels, investigate the subgroup patterns identified here as exploratory findings, and explore the relational and motivational dimensions of one-on-one paraprofessional tutoring that conventional outcome studies are not designed to capture. As the field continues to refine its understanding of what high-impact tutoring looks like at scale, programs that combine structured, science-aligned curriculum with sustainable delivery models deserve sustained empirical attention.

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Supplementary Materials

Table A1. Multilevel Model Results: FastBridge EOY Early Reading English Composite Scores, Students Below the 50th Percentile at BOY (13 Schools)



Condition	<i>n</i>	EOY Est. Marginal Mean	Unadj. ICC	Adj. ICC	β	SE	<i>p</i> -value	Hedges' <i>g</i>
Comparison	542	51.8	0.09	0.13	1.46	0.78	.062	0.17
Treatment	206	53.3						

Note. Estimated marginal means are derived from a random intercept multilevel model with school as the Level 2 clustering unit. The model controls for BOY FastBridge Early Reading Composite Score, average daily attendance, economically disadvantaged status, English Learner status, special education status, gender, and race/ethnicity. Baseline equivalence was met (Hedges' *g* = 0.13, *p* = .106).

Table A2. Multilevel Model Results: FastBridge EOY Composite Scores, Students Below the 50th Percentile at BOY and Above 90% Attendance (13 Schools)

Condition	<i>n</i>	EOY Est. Marginal Mean	Unadj. ICC	Adj. ICC	β	SE	<i>p</i> -value	Hedges' <i>g</i>
Comparison	419	53.1	0.12	0.15	1.75	0.88	0.047	0.20
Treatment	159	54.8						

Note. Estimated marginal means are derived from a random intercept multilevel model with school as the Level 2 clustering unit. The model controls for BOY FastBridge Early Reading Composite Score, average daily attendance, economically disadvantaged status, English Learner status, special education status, gender, and race/ethnicity. Baseline equivalence was met (Hedges' *g* = 0.13, *p* = .106).

Table A3. Multilevel Model Results: FastBridge EOY Early Reading English Composite Scores, Students Below the 50th Percentile at BOY Who Received 80+ Once Sessions (11 Schools)

Condition	<i>n</i>	EOY Est. Marginal Mean	Unadj. ICC	Adj. ICC	β	SE	<i>p</i> -value	Hedges' <i>g</i>
Comparison	454	51.03	0.11	0.15	3.90	0.96	< .001	0.46
Treatment	114	54.93						

Note. Estimated marginal means are derived from a random intercept multilevel model. The model controls for the same covariates as the primary analysis. This subsample is restricted to treatment students



completing 80 or more Once sessions and comparison students in the same 11 schools. Although Hedges' g at baseline (0.21) falls within the WWC equivalence threshold, the difference was statistically significant, favoring the treatment group. BOY scores were included as a covariate to adjust for this difference. See Limitations.

“Added Gains” Effect Size Calculation and Interpretation

Effect size (Hedges' g)

$$g = \frac{\omega b}{\sqrt{\frac{(n_1-1)SD_1^2 + (n_0-1)SD_0^2}{n_1+n_0-2}}}$$

Where

- b is the covariate-adjusted estimate that controls for baseline differences (regression coefficient);
- $\omega = 1 - \frac{3}{4df-1}$ is the small-sample correction factor;
- n_1 is the sample size of the treatment group;
- n_0 is the sample size of the control group;
- SD_1 is the unadjusted standard deviation for the treatment group;
- SD_0 is the unadjusted standard deviation for the control group.

To facilitate interpretation of the effect sizes obtained in the analyses, these values are translated into more readily interpretable terms following the recommendations of Lipsey et al. (2012). Hill et al. (2008) provide estimates of typical annual achievement gain, students' expected growth across a school year, by subject area and grade level. Comparing intervention effect sizes to these expected annual gains offers a meaningful way to assess practical significance, allowing the intervention's impact to be understood as additional learning growth beyond what would typically occur during that school year without the intervention. Reference values from Table 5 in Lipsey et al. (2012) were used for this purpose, with a typical annual reading growth value of 1.52 for kindergarten on broad standardized tests.

Table A4. Months of Gains Conversion Table

Sample	p-val	Effect Size	Typical gain	Conversion	Months of Gains (Conversion value * 12 months)
All Students	.06	0.17	1.52	$0.17 \div 1.52 = 0.112$	1.3 months
High Attendance	.047	0.20	1.52	$0.20 \div 1.52 = 0.132$	1.6 months
80+ Sessions	< .001	0.46	1.52	$0.46 \div 1.52 = 0.303$	3.6 months



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