

BRIDGING THE LEARNING GAP

A White Paper on TeachUNITED's Teacher Coaching Model in Latin America and East Africa

Evidence from Costa Rica, Mexico, Kenya, and Tanzania | 2023-2025

Prepared for funders, ministry officials, nonprofit leaders, and education stakeholders

Based on “Teacher Professional Development and Student Learning Outcomes:

A Multi-Country Evaluation of TeachUNITED's Coaching Model
in Latin America and East Africa, 2023–2025”

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Executive Summary

TeachUNITED's work is built on a practical idea: students learn more when teachers receive sustained, embedded instructional coaching that is relevant to their local context. Between 2023 and 2025, TeachUNITED evaluated its professional development model across partner schools in Costa Rica, Mexico, Kenya, and Tanzania. The evaluation examined whether its model of sustained instructional coaching, peer learning, data-informed instruction, and localized capacity building was associated with measurable gains in student learning.

The results are strong and donor-relevant. Students in TeachUNITED-supported schools demonstrated statistically significant gains in foundational literacy and numeracy when compared with students in matched comparison schools. The most substantial gains were observed in mathematics, where students demonstrated growth corresponding to approximately **3.6 additional years of learning** on cumulative mathematics performance ($p < 0.0001$; $d = 0.76$). An effect of this size is large enough to merit careful attention, suggesting that TeachUNITED's model was associated with notable gains in numeracy skills. Additional years of learning are interpreted based on the Evans and Yuan (2019) framework, where an effect size of 0.21 represents one year of typical learning growth.

Students in TeachUNITED-supported schools achieved approximately **2.3 additional years of learning** in oral reading fluency ($p = 0.0011$; $d = 0.49$) and approximately **2.2 additional years of learning** in non-word decoding, an indicator of foundational phonics skills ($p = 0.0007$; $d = 0.46$). Together, these findings suggest that the model was associated with measurable gains across both reading fluency and the underlying decoding skills that support independent reading.

The gender equity findings are also notable. Female students in TeachUNITED-supported classrooms demonstrated larger gains than female students in matched comparison schools, including approximately **4.3 additional years of learning in mathematics** ($p < 0.0001$; $d = 0.90$) and **2.7 additional years of learning in reading fluency** ($p = 0.0032$; $d = 0.57$). These findings suggest that TeachUNITED's sustained teacher coaching model may be particularly valuable in contexts where girls face persistent barriers to academic achievement.

Bottom line: TeachUNITED's coaching-based model is associated with meaningful, statistically significant improvements in student learning across multiple countries and assessment domains. The evidence points to this teacher professional development model as a high-leverage investment in foundational learning.

Key Findings at a Glance

- **Literacy improved.** Students in TeachUNITED-supported schools achieved approximately +2.3 additional years of learning in oral reading fluency ($p = 0.0011$; $d = 0.49$).
- **Phonics and decoding improved.** Students demonstrated approximately +2.2 additional years of learning in non-word decoding, an indicator of foundational phonics skills ($p = 0.0007$; $d = 0.46$).
- **Mathematics gains were substantial.** Students achieved approximately +3.6 additional years of learning in cumulative mathematics performance ($p < 0.0001$; $d = 0.76$).
- **Advanced operations improved.** Students demonstrated approximately +2.1 additional years of learning on advanced mathematical operations tasks ($p = 0.0013$; $d = 0.45$).
- **Applied problem solving improved.** Students demonstrated approximately +2.2 additional years of learning on applied mathematical problem-solving tasks ($p = 0.0011$; $d = 0.46$).
- **Girls showed especially strong gains.** Female students achieved approximately +4.3 additional years of learning in mathematics ($p < 0.0001$; $d = 0.90$) and +2.7 additional years of learning in reading fluency ($p = 0.0032$; $d = 0.57$).

These findings are based on a longitudinal, quasi-experimental evaluation using matched comparison schools, baseline and endline student assessments, and statistical adjustment for baseline differences. The study was not designed to establish causal effects through random assignment, but it provides a strong evidence base for understanding how TeachUNITED-supported schools performed relative to comparable schools over time.

The Challenge: Schooling Without Learning

Across many low-resource communities, children attend school but do not consistently acquire the foundational literacy and numeracy skills needed for future academic success (World Bank et al., 2022). This crisis is especially urgent in rural and historically under-resourced communities where teachers often have limited access to ongoing professional support, classroom-ready tools, and effective feedback on instruction (World Bank, n.d.).

Traditional professional development often relies on short workshops delivered outside the classroom. These sessions can be useful for introducing ideas, but they rarely provide the sustained practice, coaching, and follow-up needed to change daily instruction (Darling-Hammond et al., 2017; Kraft et al., 2018). TeachUNITED addresses this gap by placing teacher growth at the center of school improvement.

Why this matters: Investments in materials, technology, and infrastructure are important, but student learning depends heavily on what happens between teachers and students every day. Coaching teachers to improve daily instructional practice is a direct investment in learning outcomes.

TeachUNITED's Model: Sustained Coaching, Local Capacity

TeachUNITED's professional development model is designed to strengthen instructional quality in under-resourced schools through sustained coaching, collaborative professional learning, and local peer leadership development. Rather than treating professional development as a one-time event, the model supports teachers over time as they apply new strategies in real classrooms.

- 1. Instructional coaching.** Grounded in [TeachUNITED's RISE framework](#), coaches lead teachers through reflective cycles of inquiry to strengthen instructional practices
- 2. Data-informed instruction.** Educators learn to use student performance data to identify learning gaps and adjust instruction.
- 3. Differentiated teaching.** Teachers are supported to use small groups, tiered activities, and targeted support for diverse learners.
- 4. Classroom systems and engagement.** The model emphasizes supportive classroom culture, structured routines, positive relationships, and active student participation.
- 5. Local adaptation.** Training is adapted to the needs of each region, including language, curriculum, and culture, including delivery in Swahili, English, Spanish, and indigenous Mayan languages where appropriate.
- 6. Train-the-trainer sustainability.** Experienced educators are prepared to serve as peer mentors and school-based instructional leaders.

This approach is both practical and scalable: build the capacity of teachers, support them while they implement new strategies, and bring it system-wide by developing local educators who can sustain the work.

How the Evaluation Was Conducted

The evaluation used a quasi-experimental matched-comparison design that pooled three annual cohorts from 2023, 2024, and 2025. For each cohort, student growth was measured from the beginning to the end of the corresponding academic year, and results were then combined to compare outcomes between

TeachUNITED-supported schools and matched comparison schools across Costa Rica, Mexico, Kenya, and Tanzania. Because random assignment was not feasible, comparison schools were selected to reflect similar geographic setting, socioeconomic context, and grade-level configuration. Where appropriate, a single comparison school was used as the matched comparison for more than one treatment school. This approach was adopted because data collection in non-participating schools presented practical constraints, including limited access, scheduling challenges, and the need to maintain a feasible comparison sample while preserving similarity on key matching characteristics.

Assessment	Total longitudinal sample	TeachUNITED group	Matched comparison group
EGRA literacy	N = 190 students	132 students	58 students
ICAN numeracy	N = 208 students	143 students	65 students

Student learning was measured using internationally recognized assessment tools: the Early Grade Reading Assessment (EGRA) for literacy and the International Common Assessment of Numeracy (ICAN) for mathematics. Analyses used Analysis of Covariance (ANCOVA) to adjust for baseline differences between groups. Effect sizes were reported using Cohen's *d* and interpreted using the additional-years-of-learning framework described by Evans and Yuan (2019), where an effect size of approximately 0.21 is used as a benchmark for one year of typical learning growth.

Important interpretation note: Because the evaluation was quasi-experimental rather than randomized, the findings should be understood as strong evidence of association rather than established causal effects through random assignment. However, the use of matched comparison schools, student repeated measures data, standardized assessments, and baseline statistical adjustment strengthens confidence in the observed results.

What the Evidence Shows

Across the evaluation period, students in TeachUNITED-supported classrooms demonstrated higher learning growth than students in matched comparison schools. The findings were statistically significant across several literacy and numeracy indicators and were educationally meaningful in practical terms.

Outcome area	Student measure	Learning gain	Statistical evidence
Literacy	Oral reading fluency	+2.3 additional years of learning	$p = 0.0011$; $d = 0.49$
Literacy	Non-word decoding / phonics	+2.2 additional years of learning	$p = 0.0007$; $d = 0.46$
Numeracy	Cumulative mathematics performance	+3.6 additional years of learning	$p < 0.0001$; $d = 0.76$
Numeracy	Advanced operations	+2.1 additional years of learning	$p = 0.0013$; $d = 0.45$
Numeracy	Applied problem solving	+2.2 additional years of learning	$p = 0.0011$; $d = 0.46$
Gender equity	Female reading fluency	+2.7 additional years of learning	$p = 0.0032$; $d = 0.57$
Gender equity	Female mathematics performance	+4.3 additional years of learning	$p < 0.0001$; $d = 0.90$

The table above preserves the core statistical findings from the evaluation report. The impact is clear: students in TeachUNITED-supported schools were not merely improving; they were improving at a rate that substantially outpaced students in similar comparison settings.

Literacy: Stronger Reading Fluency and Decoding

Reading fluency is a foundational skill that affects nearly every later academic outcome. Students who cannot read with accuracy and fluency often struggle across subjects, including science, social studies, and mathematics word problems (World Bank, 2021). In the evaluation, TeachUNITED-supported students demonstrated approximately +2.3 additional years of learning in oral reading fluency compared with matched comparison students ($p = 0.0011$; $d = 0.49$).

The evaluation also found gains in non-word decoding, a task that assesses whether students can apply phonics rules to unfamiliar words rather than relying only on memorized vocabulary.

TeachUNITED-supported students achieved approximately +2.2 additional years of learning on this measure ($p = 0.0007$; $d = 0.46$). This suggests improvement in the underlying reading skills that help children become independent readers.

Numeracy: Large Gains in Mathematics

The strongest overall findings were in mathematics. Students in TeachUNITED-supported schools demonstrated approximately +3.6 additional years of learning in cumulative mathematics performance relative to matched comparison students ($p < 0.0001$; $d = 0.76$). In education research, an effect size of this magnitude is generally considered large and indicates a substantial difference between groups.

Importantly, the mathematics gains were not limited to basic arithmetic. Students also improved in advanced operations (+2.1 additional years of learning; $p = 0.0013$; $d = 0.45$) and applied problem solving (+2.2 additional years of learning; $p = 0.0011$; $d = 0.46$). These results suggest that TeachUNITED-supported instruction was associated with growth in both procedural fluency and more complex mathematical thinking.

Gender Equity: Particularly Strong Gains for Girls

Another key finding is the magnitude of gains among female students. In many under-resourced communities, girls face barriers that can limit academic participation and achievement. The evaluation found that girls in TeachUNITED-supported classrooms experienced particularly strong growth relative to girls in matched comparison schools.

- **Female reading fluency:** +2.7 additional years of learning ($p = 0.0032$; $d = 0.57$).
- **Female mathematics performance:** +4.3 additional years of learning ($p < 0.0001$; $d = 0.90$).
- **Notably, male students also improved significantly:** +2.0 additional years in reading fluency and +3.0 additional years in mathematics.

These results should be interpreted carefully: the evaluation was not designed to isolate the exact mechanisms behind the gender-differentiated findings. However, the pattern is promising. Structured routines, differentiated instruction, data-informed support, and more inclusive classroom engagement may help create learning environments where girls can make especially strong academic progress.

Why This Investment Model Matters

The TeachUNITED model offers a clear value proposition: invest in teachers, strengthen classroom practice, and build local capacity that can continue after direct support ends. The model does not depend solely on external experts delivering repeated workshops. Instead, it develops educators and school leaders who can sustain instructional improvement within their own communities.

1. **It targets the classroom.** The model focuses on daily instructional practice, where student learning actually happens.
2. **It builds local ownership.** Teachers and school leaders are supported to become instructional leaders within their own schools.

3. **It adapts to context.** Implementation is tailored to local language, curriculum, and school realities.
4. **It shows measurable learning gains.** The evaluation documents statistically significant results in literacy, numeracy, and gender-differentiated outcomes.
5. **It is designed for sustainability.** The train-the-trainer approach supports continuity beyond the initial intervention period.

Recommendations for Funders and Partners

1. **Prioritize sustained coaching over one-time workshops.** Funding should support professional development models that include recurring coaching, classroom feedback, and implementation support.
2. **Invest in foundational literacy and numeracy through teacher capacity.** The evaluation indicates that coaching-based professional development can be associated with meaningful gains in the core skills students need most.
3. **Support gender-responsive instructional improvement.** The strong gains among girls warrant continued investment and closer study of how improved classroom practice can advance equity.
4. **Fund locally adapted implementation.** Programs are more likely to be adopted and sustained when training reflects local language, curriculum, and culture.
5. **Scale with evidence and learning.** Future expansion should preserve the core coaching model while continuing to collect rigorous student outcome data.

Conclusion

The 2023-2025 evaluation shows that TeachUNITED's professional development model is associated with meaningful improvements in student learning across multiple countries and assessment domains. Students in TeachUNITED-supported schools demonstrated statistically significant gains in reading fluency, decoding, mathematics, advanced operations, and applied problem solving. Girls showed especially strong gains, particularly in mathematics.

For those seeking to improve foundational learning in under-resourced communities, TeachUNITED offers a model that is practical, locally responsive, and supported by measurable evidence. Continued investment can help expand access to effective teaching, strengthen local education systems, and accelerate learning for students who have historically had the least access to high-quality instructional support.

A practical path forward: Support teachers consistently, build local coaching capacity, measure student learning carefully, and scale what works.

Notes on Evidence and References

This whitepaper is based on the TeachUNITED Evaluation Report 2023-2025, a quasi-experimental evaluation conducted internally by the TeachUNITED Global Research & Evaluation Team using the organization's monitoring and evaluation framework.

Key methodological notes:

- Student outcomes were measured using EGRA and ICAN assessment frameworks.
- The evaluation used matched comparison schools and baseline-adjusted ANCOVA models.
- Reported additional years of learning are interpretive estimates based on the Evans and Yuan (2019) framework.
- Because the design was quasi-experimental rather than randomized, findings should be interpreted as strong associations rather than definitive causal estimates.

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