



Teacher engaging primary six learners during a social studies lesson. Koro Primary School, Bidi Bidi Refugee Settlement - Yumbe District

PlayMatters Uganda to enhance teacher practices and wellbeing by Learning through Play: A Cost-effectiveness Analysis (CEA)

HIGHLIGHTS

In Uganda, refugee-hosting primary schools are severely overcrowded, averaging 85 students per teacher — roughly double the national average of 43:1 and the government's 53:1 standard.ⁱ

Displaced, trauma-affected children can struggle to learn to read, write, and do basic math. Uganda spends 2% of national income on education, less than half the 5.4% international benchmark.^{ii iii}

Training teachers in play-based methods, combined with continuous school-based professional development, has the potential to improve how teachers teach and how much children learn. Decision makers need evidence on cost-effectiveness to determine whether to support and scale this approach.

In 2025, researchers evaluated PlayMatters, an education initiative implemented by a consortium led by the International Rescue Committee (IRC), in partnership with the LEGO Foundation across refugee-hosting districts in Uganda. The consortium included Plan International, War Child Alliance, Innovations for Poverty Action, and the

Behavioural Insights Team. The program integrates Learning through Play (LtP) into education systems to improve holistic learning and wellbeing for refugee and host-community children. The evaluation examined the program's impact on teachers' instructional practices and occupational wellbeing.

We conducted a cost-effectiveness analysis and found the program cost US \$657 per teacher to produce a meaningful gain in a teacher's classroom practice, and between US \$2,332 and US \$6,148 per teacher for a similar improvement in a teacher's occupational wellbeing.

Our analysis contributes to growing but limited evidence, and suggests LtP is a promising cost-effective approach relative to a counterfactual teacher-support programming.

We recommend replication of the PlayMatters Core Package across multiple contexts within the region to refine the model for more cost-effective scale-up. We believe funders should support LtP scaling efforts, alongside additional refinement research

including cost analyses that separate one-time, school-level investments from recurrent, teacher-level investments; implementers can increase impact by supporting teachers to apply play-based approaches consistently.

THE APPROACH

PlayMatters ran in Ethiopia, Uganda, and Tanzania from January 2020 through March 2026 following a phased, cohort-based rollout aligned with school calendars in each country. The program reached over 14,000 teachers and 900,000 children. The program replaces traditional “chalk-and-talk” instruction with active, child-centered, play-based teaching methods that capitalize on children’s natural desire to play. We conducted a cost-effectiveness analysis (CEA) during the program’s third cohort in Uganda from January 2025 to December 2025.

The PlayMatters Consortium implemented this intervention across nine refugee-hosting districts in Southwest, West Nile, and Northern Uganda covering 16 refugee settlements. The program primarily targets children aged 3-12 years but also includes older learners still in primary school due to disrupted education. This broader age range reflects PlayMatters’ whole-school approach, which aims to support all learners in refugee and host-community schools, alongside the teachers, school leaders, and community members who influence their learning environment.

The PlayMatters Core Package includes a foundational (5-day) and follow-up (3-day) teacher training delivered through a cascade approach, coaching and supportive supervision visits, teacher learning circles, the provision of scholastic and play materials, and school rehabilitation activities to help schools meet minimum quality standards, including constructing school fences and latrines, improving classroom floors, installing window shutters, and building storage facilities for learning materials. Continuous teacher professional development, school management training, and community engagement were central to the design.

This is the second large-scale rigorous impact evaluation of PlayMatters. The first study in Ethiopia focused primarily on child outcomes;^{iv} this second study in Uganda focused on teacher practices, so its child-level results are exploratory. This study evaluated the program’s impact on teacher practices and wellbeing using a randomized controlled trial (RCT) across schools in the five districts where all three implementation

partners are jointly present. Schools in the treatment group received the PlayMatters Core Package; schools in the control group continued with standard government provision during the study period.^v This study produced comparable effects on classroom practice to the Pakistan Reading Project (PRP), a large-scale teacher development program focused on literacy. On student engagement, the most similar outcome between the two programs, PlayMatters had larger effects.^{vi}

COST-EFFECTIVENESS ANALYSIS: PROCESS

We analyzed costs from the implementer perspective using the standard ingredients method.^{vii} Drawing on impact evaluation and cost data, we estimated the cost per 0.2 standard deviation increase in both teacher outcomes and student learning outcomes. For learning outcomes, Kraft (2020) identifies a 0.2 SD as a large, policy-relevant change in achievement;^{viii} for teacher outcomes, the 0.2 SD threshold serves only as a common unit enabling comparison across measures. These findings help us compare PlayMatters with other education programs and policy options. We further examined different cost categories to help practitioners understand how to achieve cost savings, as well as how costs may vary across contexts.

COST-EFFECTIVENESS VS. COST-EFFICIENCY: WHAT’S THE DIFFERENCE?

A **cost-effectiveness** analysis evaluates a program’s costs and its *outcome* effects (e.g., reduction in mortality, improvement in child literacy). We conduct cost-effectiveness analyses alongside impact evaluations to help us decide *which* programs to implement.

A **cost-efficiency** analysis evaluates a program’s cost and its *output* effects (e.g., number of children immunized, number of teachers trained). Cost-efficiency analyses help us scale by providing evidence on *how* to best implement a program.

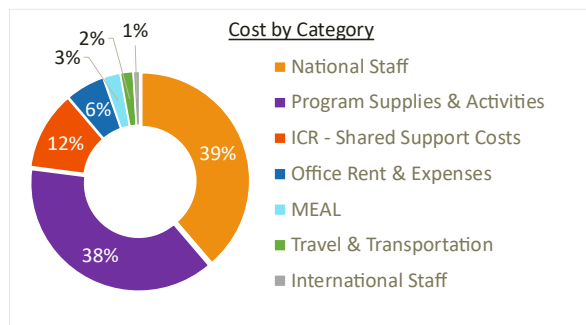
COST FINDINGS

The program costs US \$2,884,156 across 70 schools reaching 853 teachers and 70,164 children through three implementing partners. This translates to US \$3,381 per teacher or US \$41 per student.

Across the consortium, direct program costs accounted for 75% of total costs, with National

Staff and Program Supplies and Activities together accounting for 68% of direct program costs.

Figure 1: Support and Direct Program Costs by Category



One reason for the relatively large National Staff costs is that PlayMatters relies on national facilitators and regional education officers to implement intensive, hands-on professional development. This structure requires a sustained technical engagement and frequent in-person support across multiple refugee and host-community schools.

Program Supplies and Activities (38%) is a major driver due to training of trainers, teacher training workshops, procurement of teaching and learning materials, and school rehabilitation. These costs reflect the resources required to train and equip teachers and schools that lacked basic materials prior to implementation.

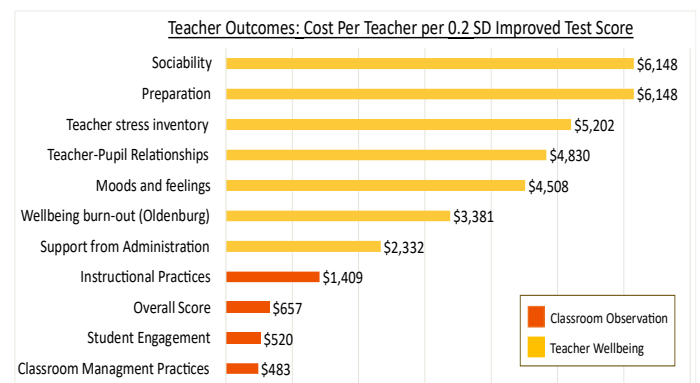
Across activity buckets, Teacher Training and Teacher Continuous PD are the dominant cost drivers, together accounting for over 45% of the US \$3,381 cost per teacher: Teacher Training at US \$882 and Teacher Continuous PD at US \$646. These are followed by Teaching and Learning Materials (US \$533), Community Engagement (US \$497), School Management (US \$454), and Safe & Inclusive Infrastructure (US \$369). This distribution reflects the program's reliance on intensive in-person cascade training and sustained school-year support as its primary implementation cost.

COST-EFFECTIVENESS ANALYSIS

Teacher practice and wellbeing outcomes (primary):

Researchers measured teachers' classroom practice through classroom observations of a sub-sample of teachers, and their occupational wellbeing through a teacher survey. From the observations, a moderate gain in overall practice cost about US \$657 per teacher. Improving wellbeing costs more, from US \$2,332 for support from administration to US \$6,148 for preparation and sociability, per 0.2 SD.

Figure 2: Cost per Teacher per 0.2 SD Improved Test Score



Child learning outcomes (exploratory)

This study evaluated child outcomes as exploratory, since it was not large enough to identify statistically significant findings. Given their exploratory nature, we do not report cost figures on these outcomes.

IS THIS A BEST USE OF RESOURCES?

We classify an intervention as a best use of resources if we believe it is at least 20% more cost-effective than the alternative. If we think a program is no better than existing solutions, we do not think it is an especially good use of resources.

Yes

Given its limited but growing evidence base, we think this is likely a promising cost-effective intervention. Because the program improves how teachers teach, we think practice gains translate into learning gains, as evidence suggests that Sub-Saharan Africa programs that change teacher pedagogy can produce especially large learning gains.^{ix} For PlayMatters, this is specifically supported by the Ethiopia RCT. Compared to the Pakistan Reading Project, PlayMatters had similar costs per student and equivalent or larger effects on teacher practices.^x We recommend funders and implementers prioritize scaling this approach in crisis-affected contexts, alongside additional research to refine and further validate the program's impact.

CONCLUSION

Our analysis suggests that PlayMatters is likely a promising cost-effective approach to strengthening teacher instructional practice and wellbeing in crisis-affected education systems, relative to a counterfactual teacher-support programming.

In Uganda, each 0.2 SD gain in overall classroom practice cost US \$657 per teacher close to the US \$668 PlayMatters achieved in Ethiopia, where the same model also improved children's literacy, numeracy, and social-emotional learning, the downstream outcomes PlayMatters aims to produce.^{xi} These are among the first cost-effectiveness analyses of large-scale Learning through Play in humanitarian settings.

With low- and lower-middle-income countries facing an estimated US \$97 billion average annual financing gap to meet their SDG 4 benchmarks,^{xii} policymakers should treat PlayMatters as a valuable intervention for improving teaching quality and learners' engagement in refugee, host-community, and education-in-emergencies settings.

Funders should sustain and expand Learning through Play and fund cost research in new contexts including analyses that separate one-time, school-level investments from recurrent, teacher-level investments. Implementers, including local and national NGOs, can adapt PlayMatters' cascade-training and community-engagement models to sustain results at lower cost. As the existing evidence is promising, we recommend replication (alongside additional cost research) of the PlayMatters Core Package across multiple contexts within the region to refine the model for more cost-effective scale-up.

ABOUT THIS BRIEF

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For more information, please visit www.rescue.org/cost-analysis or contact us: CostAnalysis@rescue.org

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End Notes

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- ^v Makerere University and War Child Alliance. Forthcoming. *Randomized Controlled Trial of the PlayMatters Learning through Play Core Package in Uganda: Research Brief*. PlayMatters Consortium.
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