A teacher supports a student during an interactive lesson using play based methods in a PlayMatters supported school in the Somali region of Ethiopia.

PlayMatters Ethiopia Enhances Teacher Practices and Learning Outcomes using Learning through Play: A Cost-effectiveness Analysis (CEA)

HIGHLIGHTS

Across Ethiopia, recurrent droughts, conflict and large-scale displacement continue to affect millions of people. In 2023 alone, the impact of conflict, drought, flooding and disease outbreaks pushed 21.4 million people into humanitarian need and left 7.6 million children out of school.[1] The Ethiopian government and partner organizations have worked to expand access to education, but learning poverty remains alarmingly high at 90%, where nine in ten children are unable to read and understand a simple text by age 10.[2] Amid these crises, the country currently hosts nearly 1,015,800 refugees, including over 320,000 living in camps and host communities in the Somali region.[3] In these settings, schools often operate overcrowded classrooms with few qualified teachers, limited materials and inadequate infrastructure. Many students, especially those affected by displacement and trauma, struggle to gain foundational and social-emotional skills, limiting their long-term learning and wellbeing.

Teacher professional development that builds skills in play-based methods, combined with school-based continuous professional development that includes coaching and peer learning circles, and the provision of learning materials has the potential to promote positive classroom instructional practices and learning outcomes. Decision makers need evidence on cost-effectiveness to decide whether to allocate resources to this approach.

In 2025, researchers evaluated PlayMatters, an education initiative implemented by a consortium, led by the International Rescue Committee (IRC) including Plan International, War Child Alliance, Innovations for Poverty Action, and the Behavioral Insights Team in partnership with the LEGO Foundation in the Somali region of Ethiopia to understand its impacts on children's literacy, numeracy, social-emotional learning and psychosocial wellbeing, as well as on teachers' instructional practices and wellbeing.
We conducted a cost-effectiveness analysis and found that improving student learning outcomes

cost US $24 - 64 per child per 0.2 standard deviation improved test score, equivalent to a per-teacher cost of US $622 - 1,185 per 0.2 standard deviation improved test score.

Our analysis suggests that strengthening teacher practices and learning outcomes through Learning through Play is a cost-effective approach to address poor foundational learning in crisis-affected schools.

This assessment is based on limited evidence from a single cohort in one region. We recommend replication of the cost-effectiveness analyses across multiple contexts and cohorts, alongside further research, to inform scale-up decisions.

THE APPROACH

The IRC and its partners have been implementing PlayMatters in Ethiopia, Uganda and Tanzania from January 2020 through to March 2026 following a phased, cohort-based rollout aligned with school calendars in each country. The program integrates Learning through Play (LtP) into pre-primary and primary schools to improve children's holistic learning and wellbeing outcomes including literacy, numeracy and social-emotional skills, by replacing traditional chalk-and-talk instruction with active, child-centered and play-based teaching methods that capitalizes on a child's natural desire to engage in play. We conducted this cost-effectiveness analysis (CEA) during the program's second cohort in Ethiopia from October 2024 to June 2025.

The PlayMatters consortium implemented this intervention in the Somali region of Ethiopia, where overcrowding, low enrolment and limited teacher training contribute to poor foundational learning outcomes and overstretched teacher capacity. The program targets children aged 3 - 12 years, including older learners still in primary school due to disrupted education and because Ethiopia's primary education cycle extends through Grade 8. 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 visits, teacher learning circles, the provision of scholastic and play materials and school rehabilitation to meet Minimum Quality Standards (MQS). Continuous teacher professional development, school management training and community engagement were also central to the design.

We evaluated the program's impact on teacher practices and student learning outcomes using a randomized controlled trial across 35 schools in five districts. We collected endline data soon after implementation concluded. The cost-effectiveness results presented below focus on student learning outcomes only, reflecting PlayMatters' goal of improving children's literacy, numeracy, and social-emotional learning.

COST-EFFECTIVENESS ANALYSIS: PROCESS

We used results from the impact evaluation and cost data to estimate the cost per 0.2 standard deviation increase in both student learning outcomes and teacher outcomes. This follows the interpretation proposed by Kraft (2020), which identifies a 0.2 SD effect size as representing a large, policy-relevant change in educational achievement.[4] 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 cost a total of US $761,609 to reach 19,802 students and 377 teachers. This translated to US $38 per child and US $2,020 per teacher.

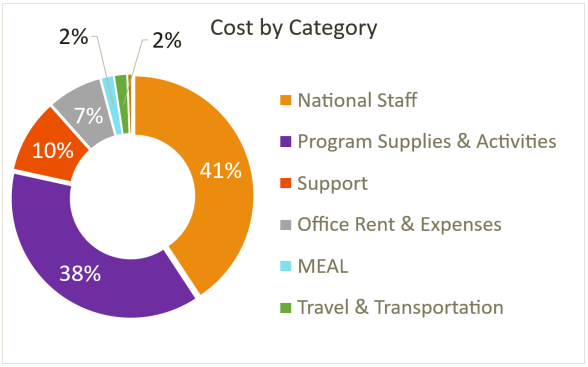
This cost includes operational teams supporting program delivery, office operating costs such as rent and utilities, program team and program activities.

Key cost drivers were National Staff (41%) and Program Supplies & Activities (38%). Among Program Supplies & Activities, substantial resources were allocated to activities involving Community Engagement (23%), Teaching and Learning Materials (35%) and Teacher Training (21%).

The program's technical accompaniment to national facilitators and regional education officers to implement hands-on professional development activities drives national staff costs. This structure requires a sustained technical engagement, frequent in-person support, coordination with local education authorities, and investments in school readiness and community participation across multiple refugee and host-community schools, contributing to the high personnel costs observed.

Program Supplies and Activities (38%) is another major driver. Substantial resources were allocated to teaching and learning materials, school rehabilitation, visibility materials such as t-shirts, bags, scarves and gowns, and community learning spaces. These costs reflect the need to meet Minimum Quality Standards (MQS) for safe and inclusive environments and to supply schools that lacked basic materials prior to implementation.

Figure 1: Costs by Category



COST-EFFECTIVENESS ANALYSIS

Our cost-effectiveness analysis found that for every 0.2 standard deviation improvement, it costs US $24 per child in numeracy, US $52 per child in reading comprehension and US $45 per child in social-emotional learning.

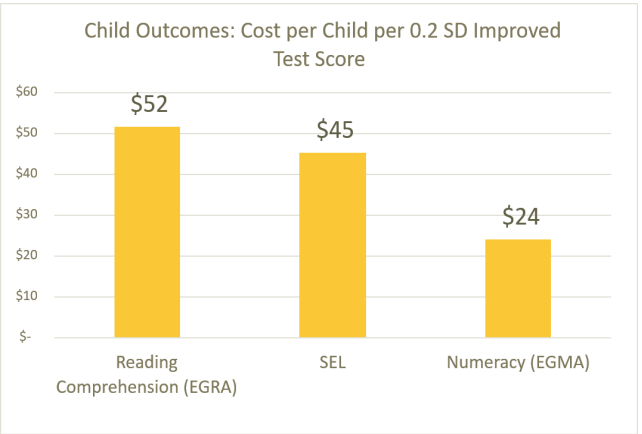
IS THIS A BEST USE OF RESOURCES?

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 promising evidence base, we think this is likely a highly cost-effective intervention. The PlayMatters Learning through Play program in Ethiopia generated significant impacts on children's numeracy, reading, and social-emotional skills, alongside gains in teacher practices and occupational wellbeing. We recommend implementers and funders prioritize additional rigorous research at scale in crisis-affected contexts.

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



CONCLUSION

Our analysis suggests that PlayMatters is likely a cost-effective approach to improving foundational learning and social-emotional learning outcomes in crisis-affected education systems. While the evidence base is highly limited, PlayMatters achieved above-average effects at a lower cost per child than the average humanitarian education program of US $240, according to a 2024 meta-analysis.[5]

This represents one of the first cost-effectiveness analyses of a large-scale Learning through Play (LtP) intervention in humanitarian settings. The United Nations Educational, Scientific and Cultural Organization (UNESCO) estimates an annual financing gap of US $97 billion for low- and

lower-middle-income countries to reach SDG 4.[6] Policymakers should consider PlayMatters when improving education quality and learner outcomes in refugee and host-community schools and in Education in Emergencies settings.
Funders should consider supporting LtP programs to enable cost and scalability research in other contexts. Implementers, including local and national NGOs, should adapt PlayMatters' cascade training and community engagement models to sustain results at lower cost.

At the time of producing this write-up, we were evaluating the second cohort of the program's implementation. While findings from this cohort are promising, cost-effectiveness may vary across settings with different cost structures and education system capacities. An ongoing RCT in Uganda will help validate and refine these estimates for broader policy and funding decisions.

ABOUT THIS BRIEF

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