PlayMatters

Comprehensive Teacher Professional Development to Support Classroom Practices and Wellbeing:

Implementation Research Findings from PlayMatters

41st AEAA Annual Conference
August 28, 2025
Skylight Hotel, Addis Ababa

PlayMatters
Background

PlayMatters

PlayMatters: Background and Basics

- **Goal**: Improved holistic learning and well-being for 800,000 children ages 3-12+ in refugee and host communities

- **Approach:** Strengthening refugee and refugee-hosting education systems' capacity to train and support pre-primary and primary school teachers to use "Learning through Play" as an active teaching and learning method
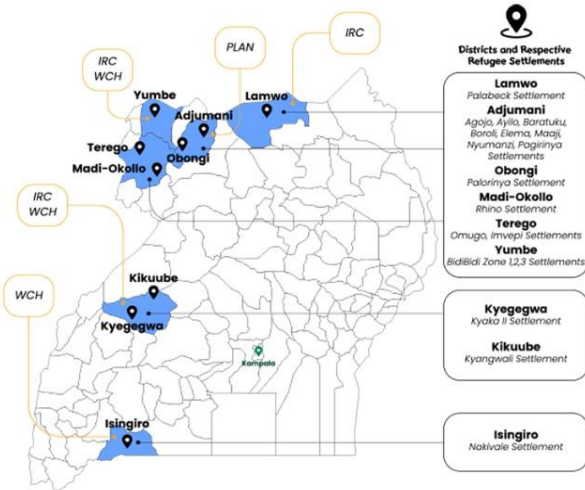
- **Duration**: 2020-2026

In partnership with

INTERNATIONAL RESCUE COMMITTEE   **ipa** INNOVATIONS FOR POVERTY ACTION   **PLAN** INTERNATIONAL   **WAR child**   THE BEHAVIOURAL INSIGHTS TEAM   The **LEGO** Foundation

PlayMatters: Countries and Target Populations

Uganda

Districts and Respective Refugee Settlements

Lamwo
Palabeck Settlement

Adjumani
Agojo, Ayilo, Baratuku, Boroli, Elema, Maaji, Nyumanzi, Pagirinya Settlements

Obongi
Palorinya Settlement

Madi-Okollo
Rhino Settlement

Terego
Omuga, Imvepi Settlements

Yumbe
BidiBidi Zone 1,2,3 Settlements

Kyegegwa
Kyaka II Settlement

Kikuube
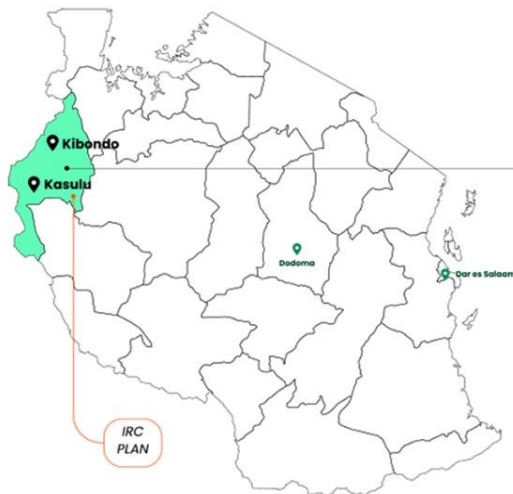*Kyangwali Settlement*

Isingiro
Nakivale Settlement

Target Populations:
- South Sudanese refugees
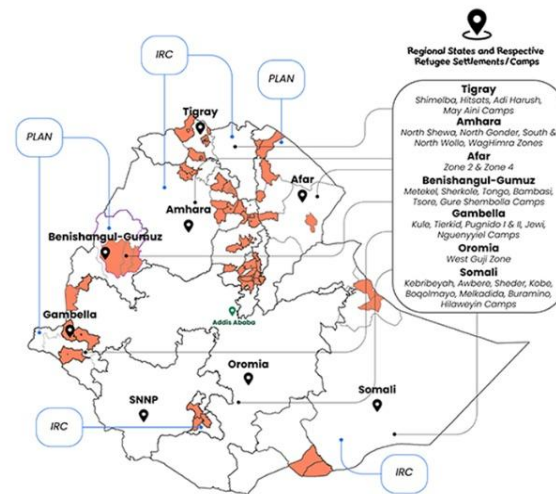- Congolese refugees
- Rwandese refugees
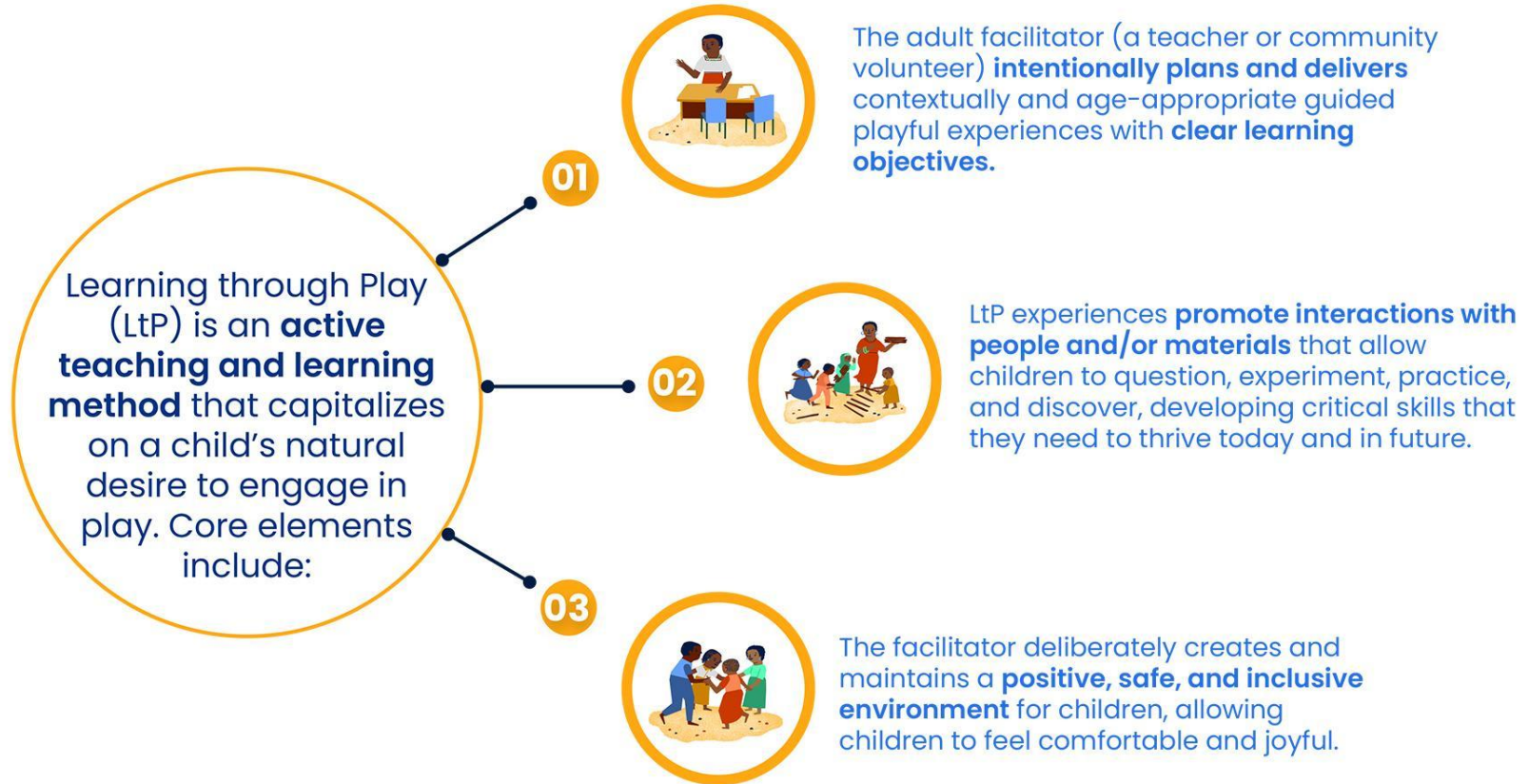- Ugandan host communities

Tanzania

Districts and Respective Refugee Settlements/Camps

Kasulu
Nyarugusu Camp

Kibondo
Nduta Camp

Target Populations:
- Burundian refugees
- Congolese refugees
- Tanzanian host communities

Ethiopia

Regional States and Respective Refugee Settlements/Camps

Tigray
Shimelba, Hitsots, Adi Harush, May Aini Camps

Amhara
North Shewa, North Gonder, South & North Wollo, WagHimra Zones

Afar
Zone 2 & Zone 4

Benishangul-Gumuz
Metekel, Sherkole, Tongo, Bambasi, Tsore, Gure Shembolla Camps

Gambella
Kule, Tierkid, Pugnido I & II, Jewi, Nguenyyiel Camps

Oromia
West Guji Zone

Somali
Kebribeyah, Awbere, Sheder, Kobe, Boqolmayo, Melkadida, Buramino, Hilaweyin Camps

Target Populations:
- South Sudanese refugees
- Somali refugees
- Ethiopian Internally Displaced
- Ethiopian host communities

LtP Definition

01 The adult facilitator (a teacher or community volunteer) **intentionally plans and delivers** contextually and age-appropriate guided playful experiences with **clear learning objectives.**

Learning through Play (LtP) is an **active teaching and learning method** that capitalizes on a child's natural desire to engage in play. Core elements include:

02 LtP experiences **promote interactions with people and/or materials** that allow children to question, experiment, practice, and discover, developing critical skills that they need to thrive today and in future.

03 The facilitator deliberately creates and maintains a **positive, safe, and inclusive environment** for children, allowing children to feel comfortable and joyful.

PlayMatters

Theory of Change (If-Then)

If pre-primary and primary teachers, schools/ECD centers, surrounding communities, and education systems are equipped with critical inputs to develop inclusive LtP practices,

then inclusive LtP methods promoting psychosocial well-being will be sustainably integrated into teaching and learning environments and systems,

then children's engagement in inclusive and meaningful LtP activities will increase over time,

leading to holistic learning and improved psychosocial well-being

PlayMatters: Core Package

*Technical support to **local education systems** (gov't and humanitarian) to deliver the PM core package in refugee and host communities*

Skill-Building

Teacher Training

Teachers/facilitators in the school/center participate in training on LtP methods and practices. These training are led by highly qualified Trainer of Trainers (ToTs) through a cascade model.

Teacher Continuous Professional Development

Head teachers & other lead teachers are supported to lead and promote continuous professional development activities on LtP, including supportive supervision, coaching, peer learning, and supportive messaging. These are done collaboratively between school-based instructional leaders and local government education actors.

School Management

School/Center management committees (SMCs/CMCs/PTAs) participate in training on how to build a positive school environment and engage school communities in LtP. These trainings are led by highly qualified Trainer of Trainers (ToTs) through a cascade model.

Community Engagement

Members of the school community actively participate in supporting Learning through Play activities, concurrent with contextually relevant awareness-raising mobilization initiatives.

Materials/Infrastructure

Safe and Inclusive Infrastructure

Where possible, the school/center meets minimum LtP quality standards (MQS) for safety and client inclusion (may require some level of rehabilitation/direct service provision) based on a standardized MQS assessment.

Teaching & Learning Materials

Teachers and pupils are provided with basic teaching and learning materials (including Six Bricks for every child) for LtP and support with the local creation of TLMs.

PlayMatters' Research Agenda

Formative Research

Identify problems and existing practices

Design Research

Generate and prototype solutions

Implementation Research

Pilot interventions, test theories of change and build evidence of cost-efficiency

Effectiveness Research

Rigorously measure impact and build evidence of cost-effectiveness

Scale
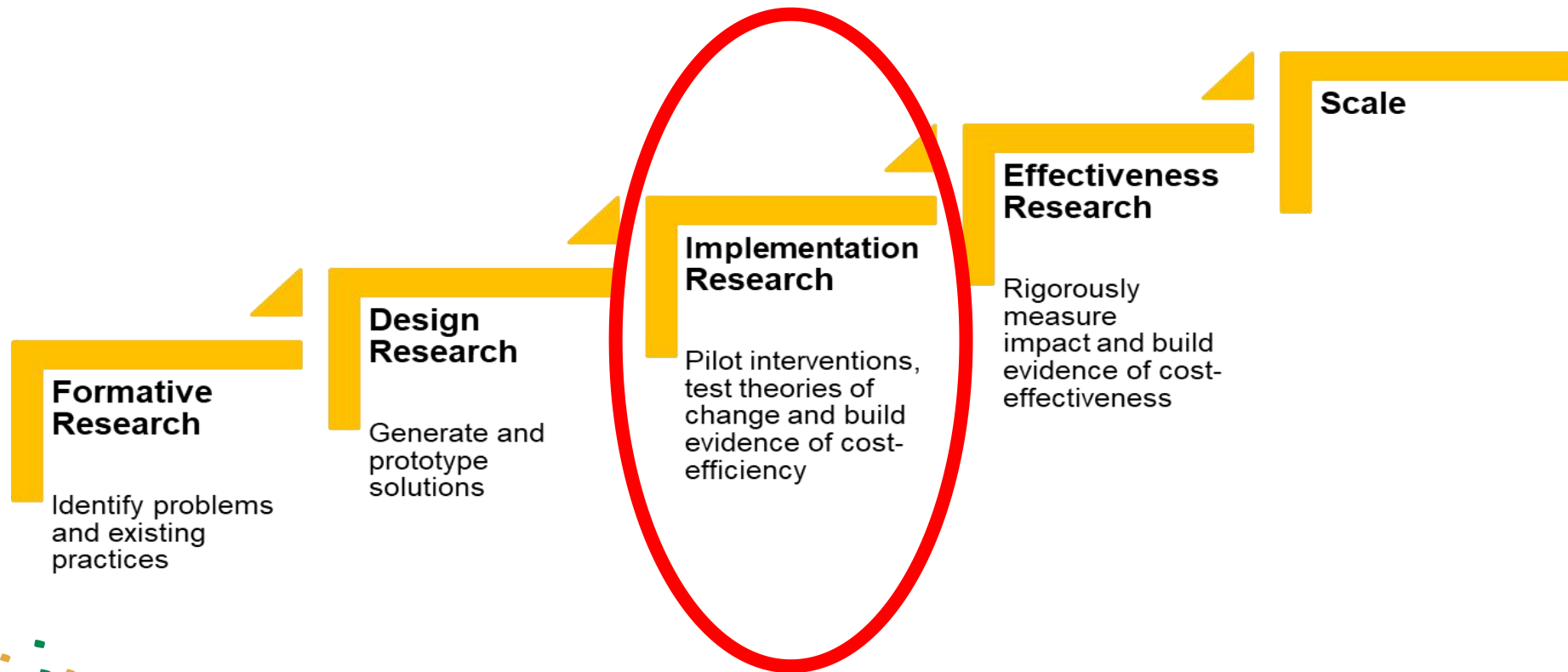
PlayMatters Uganda Feasibility Research Findings

Bruce Orech, War Child Alliance

Dr. Kizito Omala, Makerere University
Dr. Eva Smallegange, War Child Alliance
Dr. Neema Mosha

Why focus on teachers in research?

- Teachers are a key actor in PlayMatters (as shown in the theory of change of the project)

- Understanding the working mechanisms of change underlying PlayMatters, therefore, implies the need to look more closely <u>at teachers' outcomes</u> from multiple angles:

  - ○ Teacher outcome measures,
  - ○ Teacher classroom practices,
  - ○ Implementation of intervention activities.

Feasibility Study Objective

1) Testing measurements and processes for upcoming RCT

2) Gain insight in:

   ○ The fidelity of intervention _delivery_ by PlayMatters trained implementers at different levels of training cascade
   ○ Results at teacher level (mixed-method approach)

● <u>Study not powered to measure impact → focus of study on testing processes and procedures for RCT</u>

Study Design

2-armed feasibility trial. To test processes and procedures for upcoming RCT.

January 2024   May 2024   October 2024
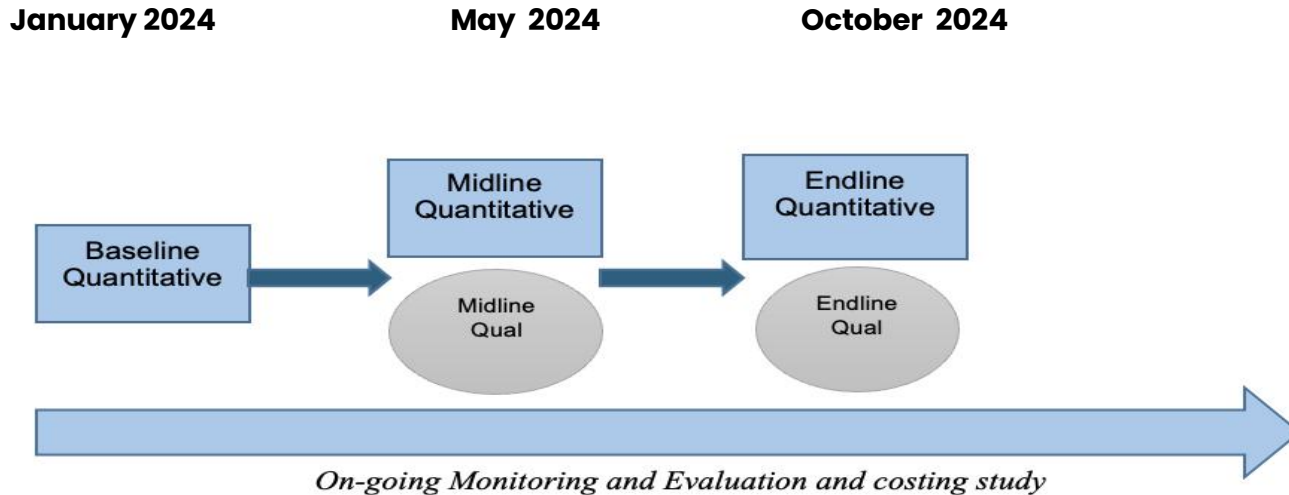
Sequence of data collection for the quantitative, qualitative and costing information.

Study Details

Location: Adjumani, Yumbe, Lamwo in Uganda

Duration: January to November 2024

Sample size:

Teachers survey: n = 250 (control n= 137, intervention n = 113)

Classroom observations: n= 15 teachers (each observed 6 times)

Language teacher tools: English

Enumerator preparation: enumerators were trained three times (before start of each data-wave) during multiple days (11 training days in total, including field practice).

Study Tools

1. **Fidelity tool**
   a. An adherence Fidelity tool for the training cascade to monitor intervention implementation at the training level

2. **Classroom observation tool**
   a. Time on task, Materials available and used, quality of the learning environments
   b. Teacher Instructional Practices, Classroom Management Practices, Student Engagement

3. **Teacher survey**
   a. TSES Teacher Self-Efficacy Scale and attitudes towards LtP
   b. TSI - Teacher Stress Inventory
   c. Oldenburg Burnout Inventory
   d. ASSETS (Wellbeing, motivation, support from administration, peer collaboration)

   - Reliability of the majority of tools was acceptable, good, or strong
   - Demographic analyses at baseline showed that randomization process has worked as groups showed similar scores.

PlayMatters cascading model (in Uganda)
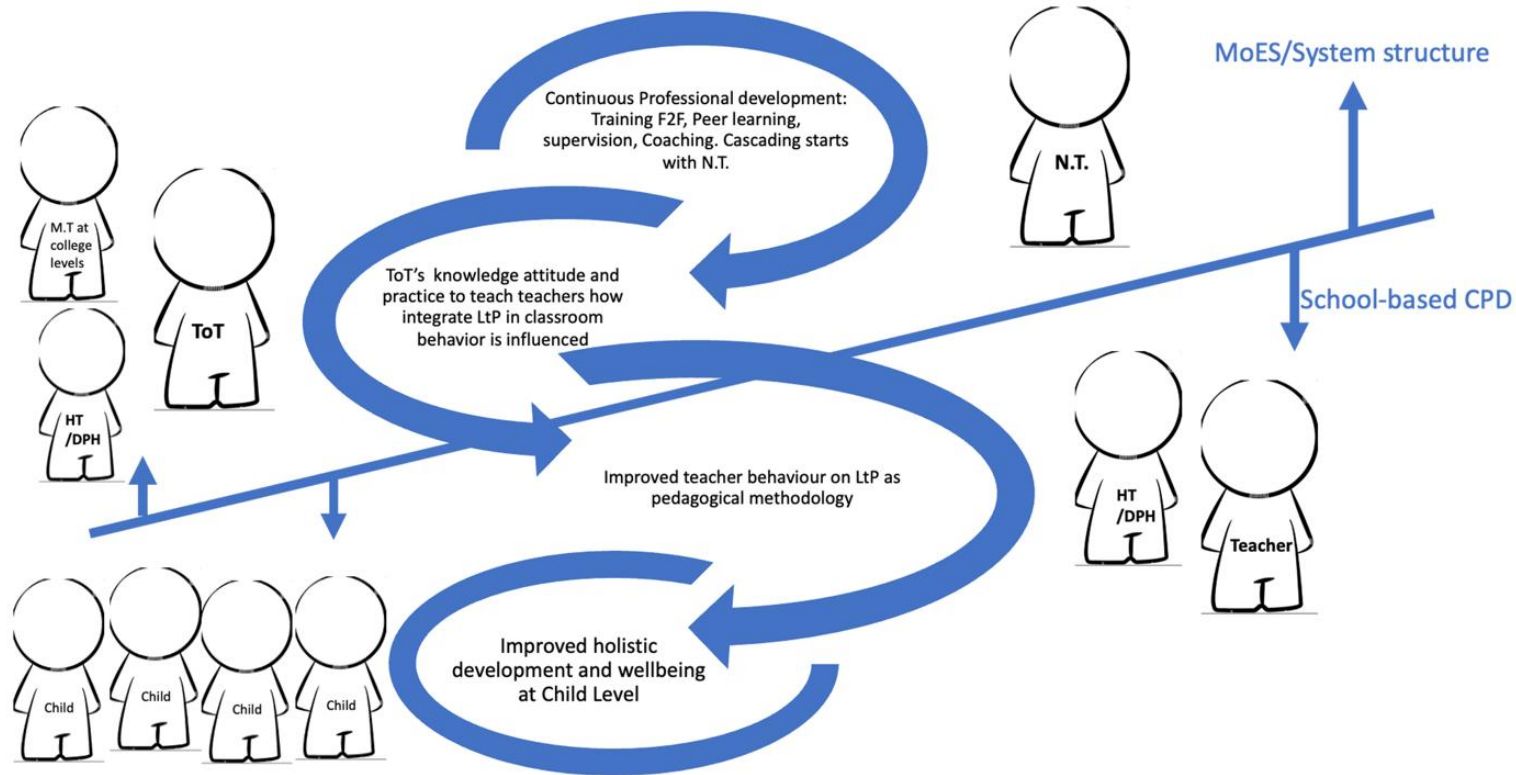
Learnings: Training Cascade Fidelity and Dosage

Facilitators' delivery of sessions	Foundational Training mean (S.D)		Refresher Training mean (S.D)		Min score	Max score
	ToTs	Teacher	ToTs	Teacher		
How effective was the facilitator in ensuring everyone could understand and participate in the activities?	2.4 (0.49)	2.1 (0.3)	2.4 (0.49)	2.1 (0.69)	1.0	3.0
How well did the facilitator explain the concepts that were included in the session	2.0 (0.0)	2.3 (0.64)	2.6 (0.49)	2.3 (0.82)	1.0	3.0
Did it seem that the facilitator had prepared the training with team/co-trainer (prior prep)	2.2 (0.4)	1.7 (0.78)	2.7 (0.59)	2.3 (0.69)	1.0	3.0
How engaged were participants in the session activities?	2.8 (0.4)	2.0 (0.45)	2.8 (0.40)	2.5 (0.58)	1.0	3.0
Were any elements or activities that are not prescribed in the (training) manual added to the session by the facilitator	0.6 (0.49)	1 (0.0)	0 (0.0)	0.2 (0.39)	0.0	1.0

Learnings: Training Cascade Fidelity and Dosage

Adherence and Dosage	Foundational Training mean (S.D)		Refresher Training mean (S.D)		Min score	Max score
	ToTs	Teacher	ToTs	Teacher		
Were all activities in the session plan done	2.8 (0.45)	2.7 (0.48)	3.7 (0.49)	3.0 (0.7)	1	4
Were the activities completed according to how they are described in the manual	2.8 (0.4)	2.8 (0.51)	3.5 (0.47)	2.8 (0.7)	1	4
Were each of the activities implemented according to the allocated time in the manual	2.8 (0.4)	2.5 (0.53)	3.2 (0.4)	1.9 (1.93)	1	4

Delivering LtP TCPD to Teachers

- **Challenge:** Training cascade sometimes lose quality at the level of delivery to teachers.
  - **LtP strategies and practices and TLM sessions** need more attention from TOTs.
  - Since there is a lot of content and some of it may get skipped, **be clear with TOTs on which content is essential and what can be skipped if necessary.**

- **Challenge:** There is some variation in how school-based TCPD activities were implemented at the school level.

  - **A school-based TCPD tracking tool for school leaders** has been developed to support standardized implementation of CPD activities and would help with ongoing monitoring efforts.
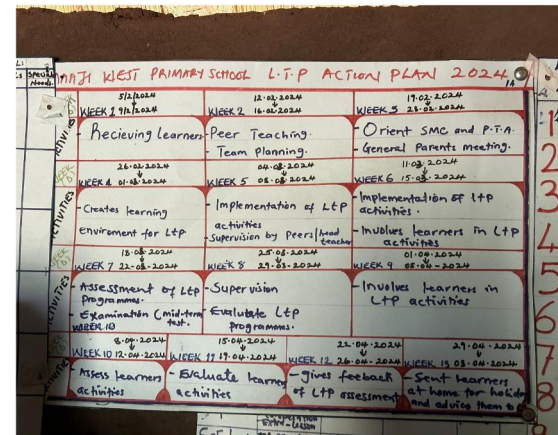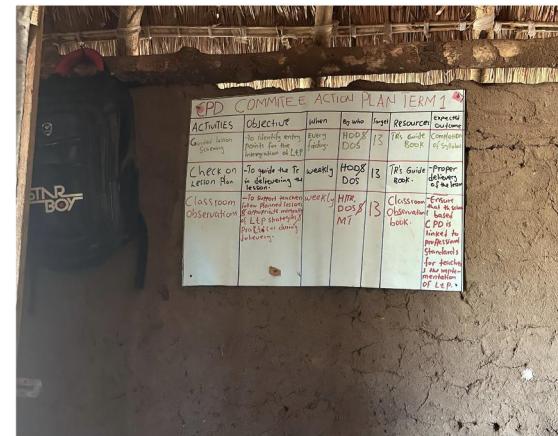
The PlayMatters Theory of Change posits that...

If teachers improve their self-efficacy, instructional practice, strategies to implement LtP, ...

THEN...

... Children's holistic learning (creative, cognitive, and social skills) and wellbeing outcomes will improve

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Findings: Changes in Teacher outcomes – Wellbeing

Mixed models estimates	Intervention effects	Significant level for intervention effect	Effect of intervention changes over time	ICC
ASSETS	Coefficient (95% C.I)	P-Value	P-Value	
Peer collaboration score	0.22 (0.06 - 0.38)	0.006	0.003	0.40
Teacher preparation score	0.11 (0.002 - 0.23)	0.046	0.072	0.31
Support from admin_score	0.002 (-0.22 - 0.22)	0.982	0.299	0.53
Intrinsic motivation	0.06 (-0.06 - 0.17)	0.347	0.306	0.46
Sociability_score	0.20 (0.07 - 0.33)	0.003	0.028	0.42
Teachers-pupil relationship score	0.10 (-0.05 - 0.24)	0.180	0.476	0.37
Sense of well-being score	0.12 (-0.09 - 0.34)	0.269	0.797	0.46

Note: The aim of the feasibility trial was to test out the RCT processes and procedures and was not powered to measure impact. Therefore the sample was small. Nonetheless we will report on several trends observed in the feasibility trial. The results should however be interpreted with caution.
Note: the alpha values were generally acceptable.

Findings: Changes in Teacher outcomes - Wellbeing

Mixed models estimates	Intervention effects	Significant level for intervention effect	Effect of intervention changes over time	ICC
Wellbeing Indicators				
Efficacy in student engagement	0.07 (-0.12 - 0.27)	0.470	0.331	0.47
Efficacy in Instructional strategies	-0.02 (-0.16 - 0.12)	0.786	0.676	0.24
Efficacy in Classroom Management	0.09 (-0.06 - 0.23)	0.230	0.390	0.41
Kessler Distress score	0.57 (-1.25 - 2.40)	0.539	0.914	0.27
Mood and Feelings Score	2.11 (-2.02 - 6.25)	0.317	0.549	0.47
Oldenburg burnout inventory	0.71 (-0.88 - 2.30)	0.384	0.406	0.41
Teachers Self Inventory	2.47 (-2.83 - 7.77)	0.361	0.164	0.46

Note: The aim of the feasibility trial was to test out the RCT processes and procedures and was not powered to measure impact. Therefore the sample was small. Nonetheless we will report on several trends observed in the feasibility trial. The results should however be interpreted with caution.
Note: Efficacy subscales alpha values often below 0.6; Kessler Distress, Moods and Feelings, and Teacher's Stress Inventory demonstrated strong internal consistency alpha values consistently above 0.8, and Moods and Feelings alpha 0.93. The Oldenburg Burnout Inventory showed alpha from 0.70 to 0.75.

Findings: Changes in Teachers' classroom practices

	Control	Intervention	Total
Number of observations	**N=43**	**N=33**	**N=76**
Students in classes observed -Mean (SD)	77.44 (28.0)	76.85 (26.0)	77.18 (27.0)
Observation round			
Visit 1	9 (60.0%)	6 (40.0%)	15 (100.0%)
Visit 2	8 (61.5%)	5 (38.5%)	13 (100.0%)
Visit 3	7 (58.3%)	5 (41.7%)	12 (100.0%)
Visit 4	7 (53.8%)	6 (46.2%)	13 (100.0%)
Visit 5	6 (50.0%)	6 (50.0%)	12 (100.0%)
Visit 6	6 (54.5%)	5 (45.5%)	11 (100.0%)

Note: results need to be interpreted with caution due to very small n.

Lessons from observational study

-Small numbers prevent controlling for differences at baseline impossible

-Enumerator Bias: additional training and exposure on LtP practices needed

-No switching of enumerators between observations: this was needed due to drop-out of enumerators during the feasibility trial.

-Teacher attrition: end of contracts reduced the sample from 15 at baseline to 11 teachers at endline

Teaching practices by Visit and study arm(2)
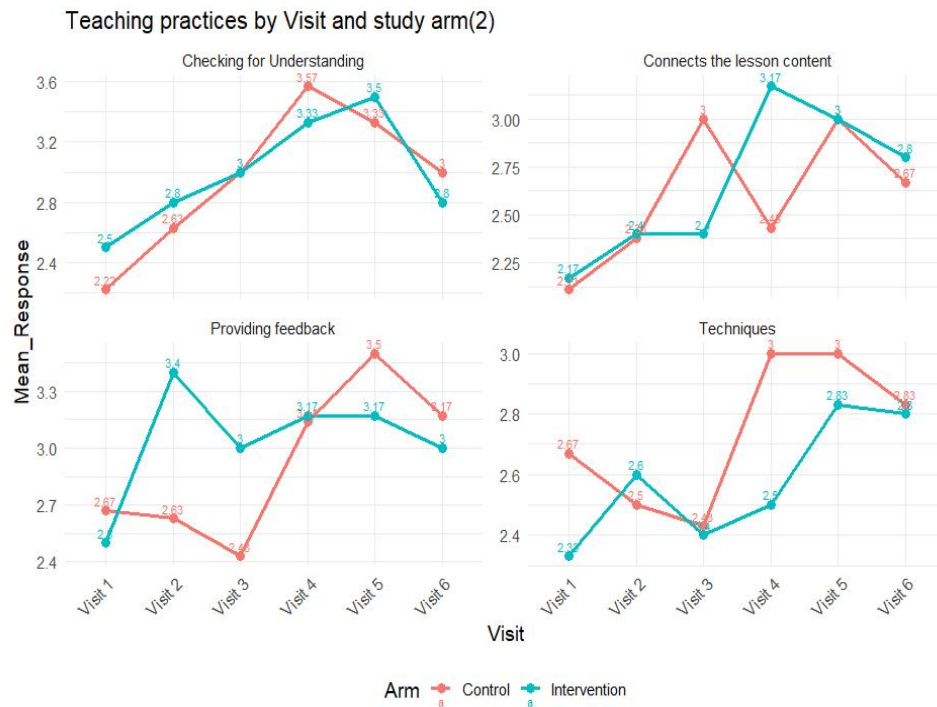
Challenges and Learnings

- Contextual factors influencing implementation and research:
  - Variation in rigor of CPD implementation at school level → activity tracker needs to improve insight in adherence to TCPD.
  - High level of teacher movement and ending of contracts during the implementation cycle → disruption of full school teams being trained in LtP (this currently continues due to USAID cuts across the sector). The study had high attrition rate from base to mid-line of around 32%. Therefore in RCT we oversampled.

- Expand focus on quality of trainers at every level of the training cascade
  → leading to including a trainer competency measurement tool in follow-up study.
  →enumerators observing the master training to gain in-depth understanding of the LtP-principles teachers would be trained in → this will support quality of their observations

Overall

- The feasibility study influenced practice:
    - fidelity results informed strengthening of the intervention package
- The results show:
    - high acceptance of the LtP construct and PlayMatters intervention,
    - Overall moderate to good fidelity of implementation of the intervention training cascade
    - Instruments had acceptable reliability.
- Next step is a powered RCT to evaluate impact
    - Currently being conducted in Uganda, finalization data-collection December 2025.

PlayMatters Ethiopia Implementation Research Findings

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Kassa Michael, Addis Ababa University
Abraha Asfaw, Addis Ababa University

Ethiopia: refugee context

- Ethiopia hosts over 966,000 refugee, the second largest in Africa as of August 2023; https://www.unrefugees.org/news/ethiopia-refugee-crisis-explained/):
  - Mainly from Eritrea, Somlai and South Sudan
  - Of all the refugee and asylum seekers, 56% are under 18 years of old

- The Somlai region (the study area) hosts over 44,000 people in eight camps)
  - UNHCR (2023) reported that 85% of refugee children in Jigjiga area, Somali region, have access to education
  - The Somlai region is also affected by draught, highly affecting the schooling of children

- Since January 2019, Ethiopia passed a new law on work permit and documentations

Ethiopia: refugee context

- Ethiopia hosts over 966,000 refugees and asylum seekers, the second largest in Africa as of 2023: *https://www.unrefugees.org/news/ethiopia-refugee-crisis-explained*
    - Mainly from Eritrea, Somalia, and South Sudan
    - Of all the refugees and asylum seekers 56% are under 18 years of age

- The Somali region (the study area), one of the refugee-hosting regions in Ethiopia, hosts over 259,781 refugees (UNHCR, 2023)

- The Somali region is usually affected by drought, which highly affects the schooling of children

- Since 2019, Ethiopia has passed a new law on work permits and documentation

Research Design

Mixed–methods Sequential Design with qual, quant and cost data for PM 2.0 Cohort 1
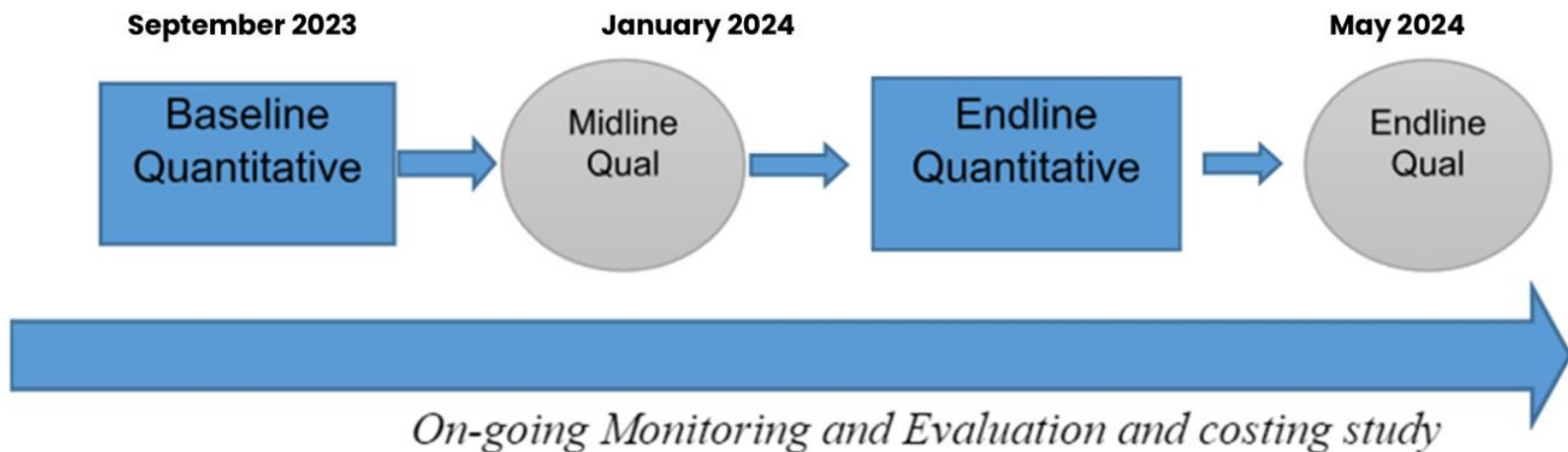
Research Tools

QUANTITATIVE

1. Headteacher survey and KII

2. Classroom observation tool
   a. Time on task, Materials available and used, quality of the learning environments
   b. Teacher Instructional Practices, Classroom Management Practices, Student Engagement

3. Teacher survey
   a. TSES scale (self-efficacy) and attitudes towards LtP
   b. ASSETS (Wellbeing, motivation, support from administration, peer collaboration)
   c. Sources of stress

4. Child-level tools
   a. EGRA and EGMA to assess literacy and numeracy
   b. Battery of scenario-based tools to assess SEL skills: Wellbeing:

All tools have shown good levels of reliability

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The PlayMatters Theory of Change posits that...

● If school leadership supports and incentivizes the use of LtP methods...

● If teaching and learning materials that support inclusive LtP are available...

● If school environments meet minimum quality and inclusion standards..

THEN...

● Educators' skills, motivations and resources are harnessed to implement LtP in the classroom

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Baseline-Endline Changes in School-Based Practices Supported by Headteachers

Baseline-Endline Changes in Headteachers Beliefs About LtP and Inclusion
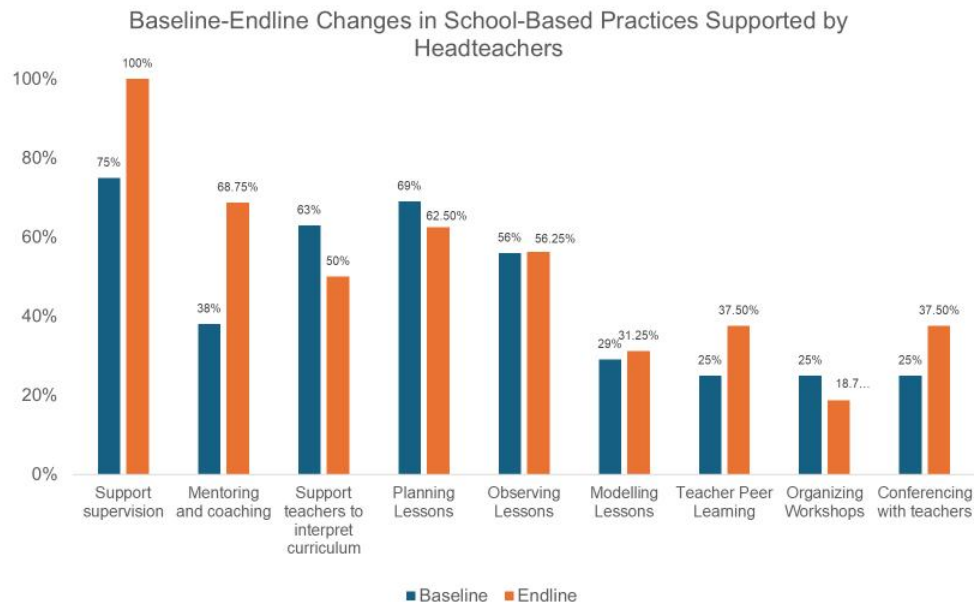
Positive and statistically significant increases in in supportive supervision, mentoring and coaching, encouraging teacher peer learning, and conferencing with teachers.
Statistically significant decrease in support to teachers to interpret the curriculum and planning lessons.
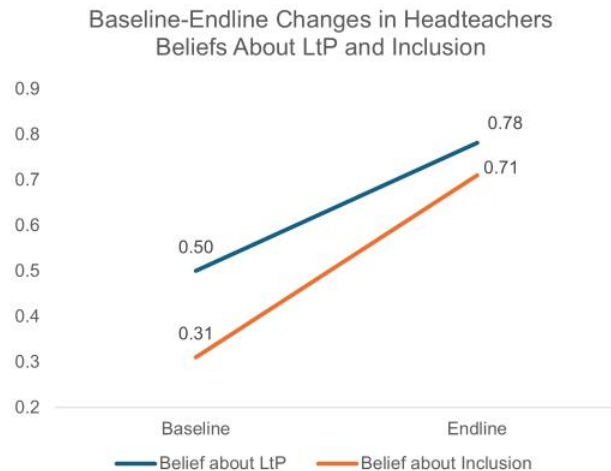
We observe positive and statistically significant changes in headteachers supportive attitudes towards LtP and inclusion

Percentage of Classrooms with Adequate Learning Environments at Baseline and Endline

Positive and statistically significant improvements in the quality of the learning environment:
- Increase of 7.4 points in the % of classrooms with adequate space for all students
- Improvements of 9.1 points in the % of classrooms with adequate space for the teacher to walk around and support students

We observe a decrease in cleanliness, but changes are not statistically significant. PM team can further raise awareness and help school communities improve cleanliness.

Findings: Changes in Teaching and Learning Materials

Percentage of Classrooms with Teaching and Learning Materials Available at Baseline and Endline
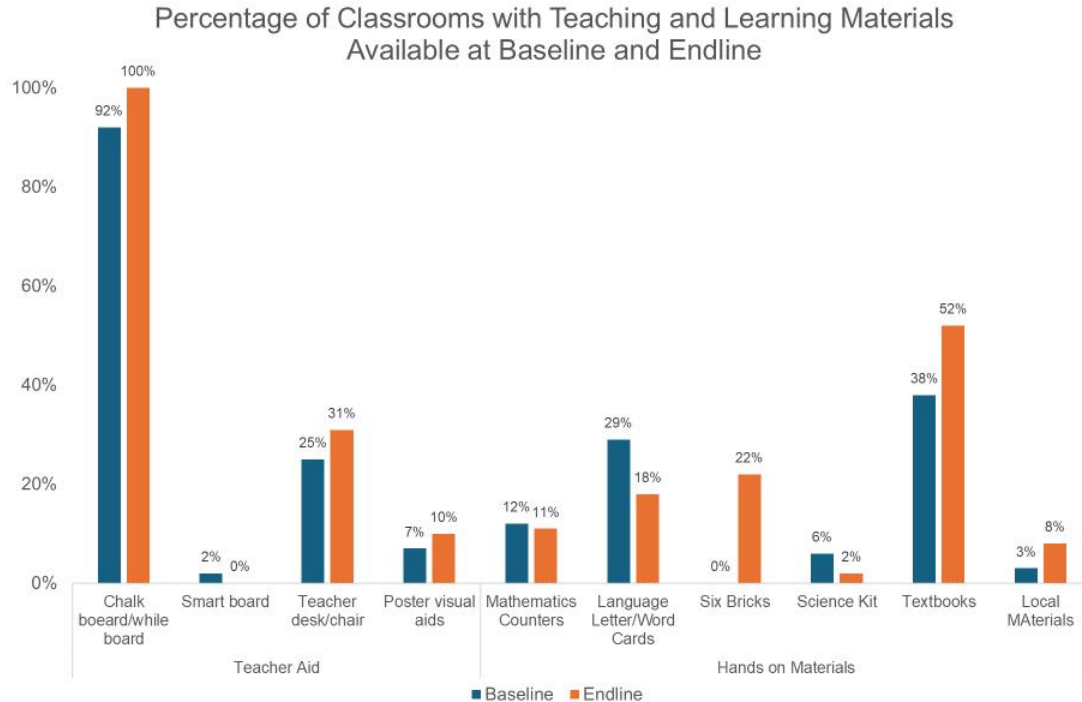
With regards to materials available….

Overall, we still low access to teaching and learning materials. However, we observe improvements from baseline to endline in 5 types of materials available (chalk, teacher desk and chair, poster visuals, six bricks, textbooks, local materials)

We observe a decrease in three types of materials (smartboard, language letter/word charts and science kit).

Findings: Changes in Teacher Professional Development

Percentage of teachers Reporting Access to TPD opportunities at Baseline and Endline

Category	Baseline	Endline
In-person courses	29%	55%
Online courses	10%	5%
Peer mentoring (single)	28%	50%
Peer networks (group)	28%	36%
From supervisors or others	45%	66%
Other school staff	34%	43%
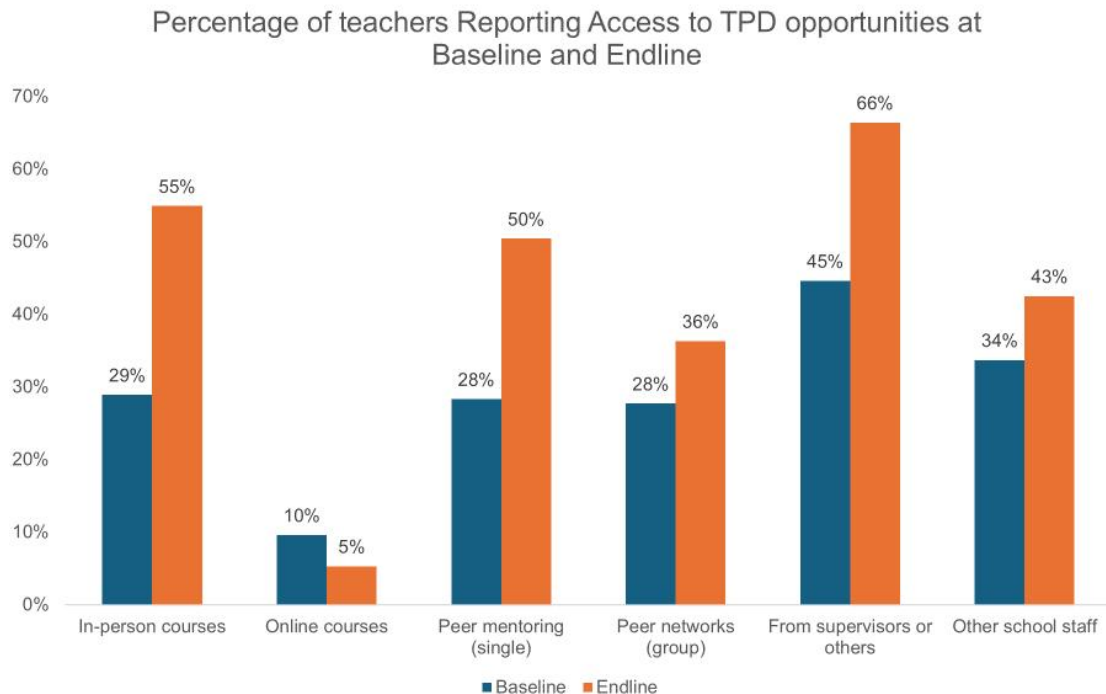
PlayMatters ToC posits that providing TPD opportunities will improve teacher instructional practices.

We observe improvements in access to 5 types of TPD, 3 of which are statistically significant (in-person courses, individual peer mentoring, and coaching by supervisors). We observe a significant decrease in online courses.

The PlayMatters Theory of Change posits that...

- If teachers' skills, motivations, and resources are harnessed to implement LtP practices in the classroom...

THEN...

- ... Improvements in teacher self-efficacy, instructional practice, ...

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Baseline-Endline Changes in the % of teachers at higher level of Teacher Self-Efficacy
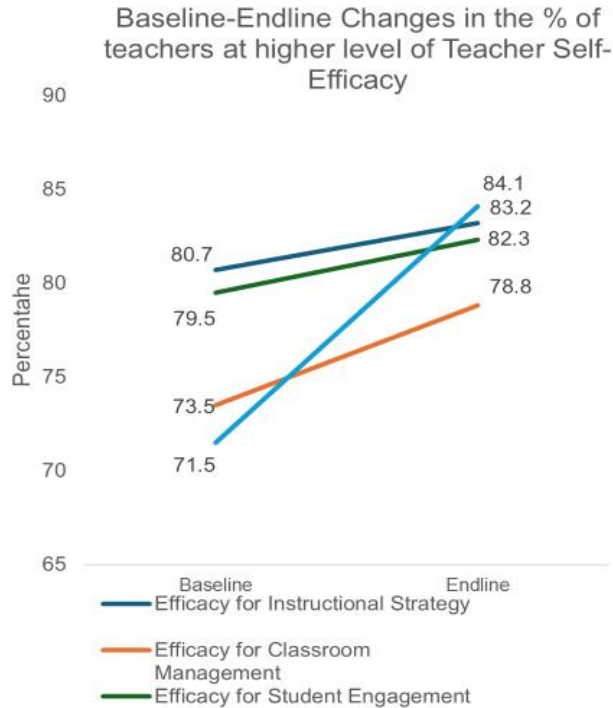
Using the Teacher Self-Efficacy Scale:
- Teachers had significant improvements in their reported self-efficacy from baseline to endline
- Supporting teachers to feel confident to implement quality instructional strategies, classroom management techniques, and facilitate student engagement is important

Findings: Changes in Teacher Well-being

Baseline-Endline changes in Average scores for Teachers' Occupational Wellbeing: **Ethiopia**
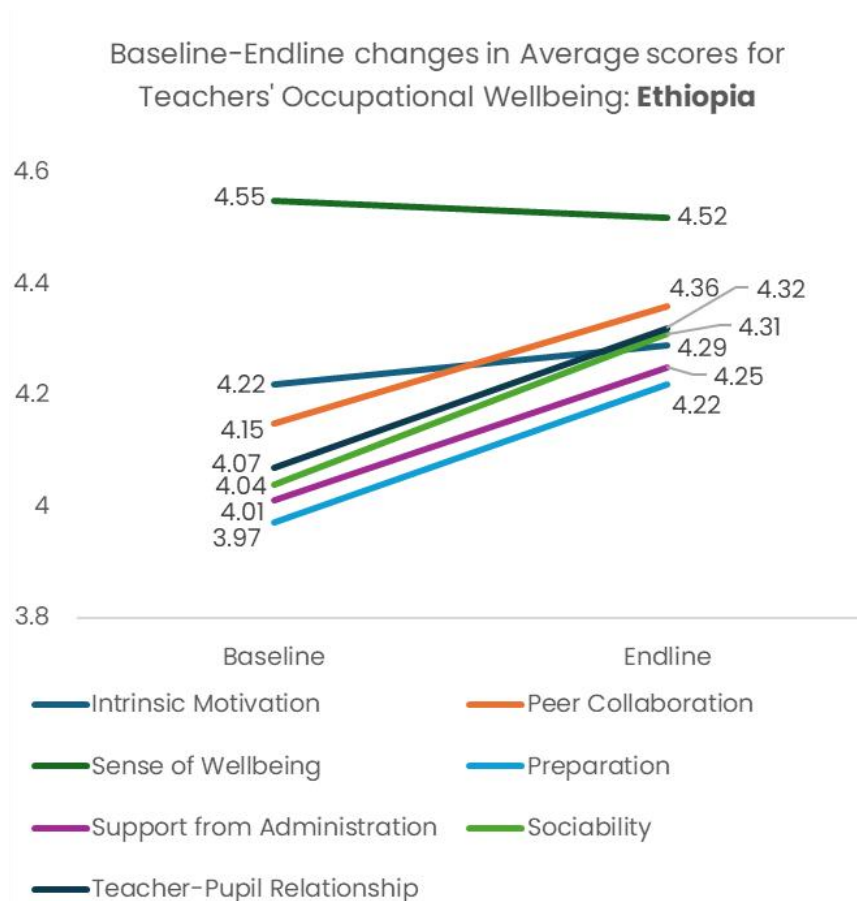
Using the Well-being ASSETS Tool:
- Teachers significantly improved their occupational well-being
- When teachers are well, they teach well

Percentage of Teachers at Different Levels of Performance in the Classroom at Baseline and Endline
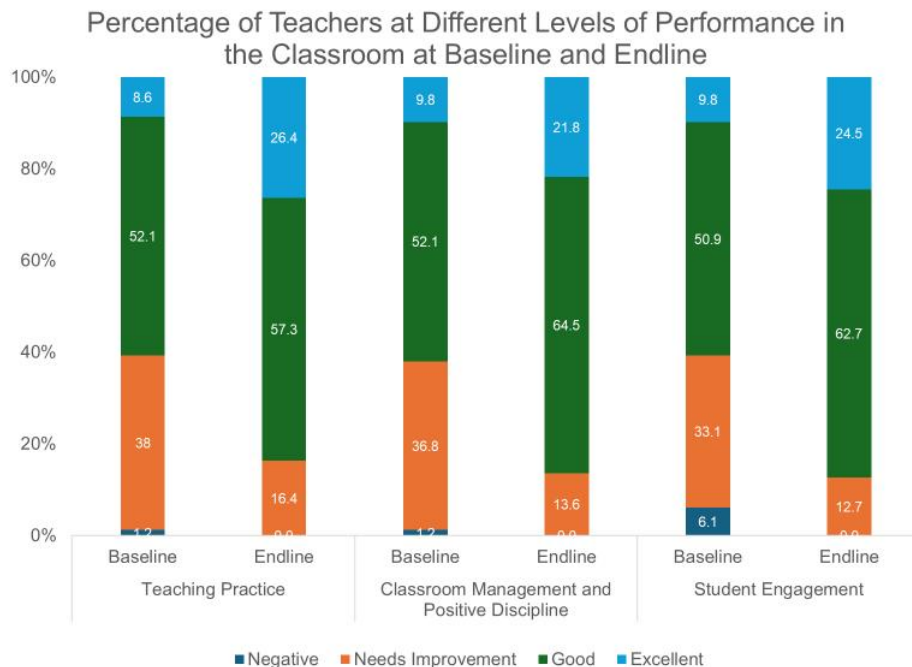
Using the Teacher Classroom Observation Tool:
- Teachers significantly improved their teaching practices

Baseline-Endline changes in Average scores
for Teachers' Classroom Practices: **Ethiopia**

3.1

2.9

2.7

2.93

2.88

2.82

3.12

3.05

3.03

Baseline

Endline

—— Teaching Practice —— Classroom Management

—— Student Engagement
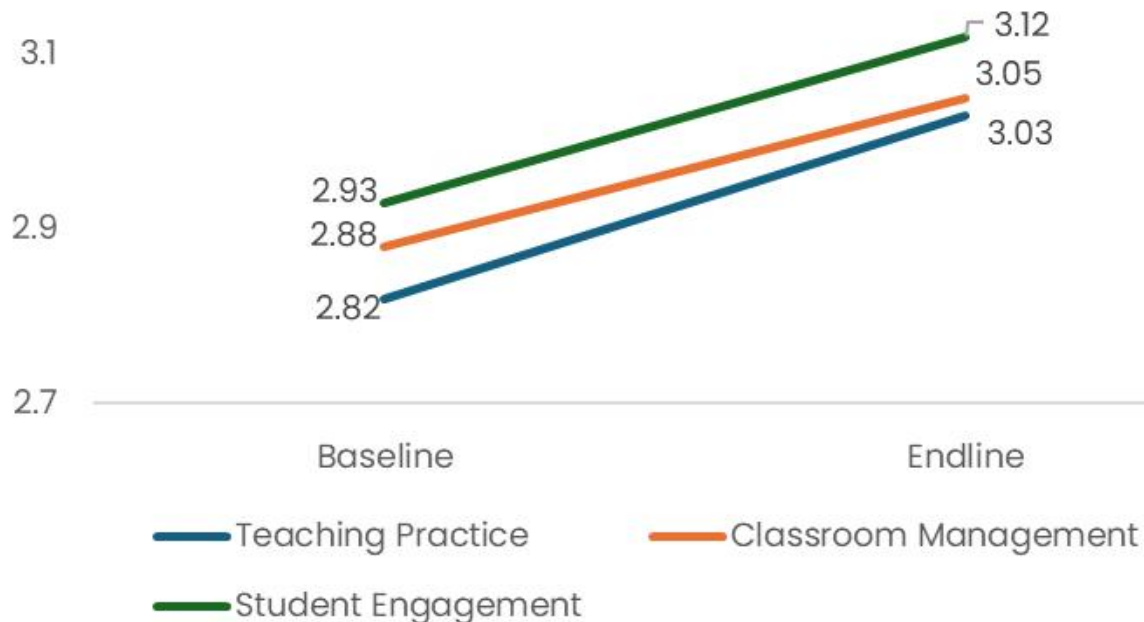
Measuring teachers' practices across three domains is important to understanding education quality.

The PlayMatters Theory of Change posits that...

● If teachers improve their self-efficacy, instructional practice, strategies to implement LtP, ...

THEN...

● ... Children's holistic learning (creative, cognitive, and social skills) and wellbeing outcomes will improve

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Baseline-Endline Changes in Overall Literacy and Numeracy Scores

We observe positive and statistically significant improvements in literacy and numeracy scores.

Overall numeracy scores show greater improvement than overall literacy scores.

Findings: Changes in Children's Social Emotional Skills

Baseline-Endline Change in Average Scores for Empathy and Emotional Attribution Accuracy
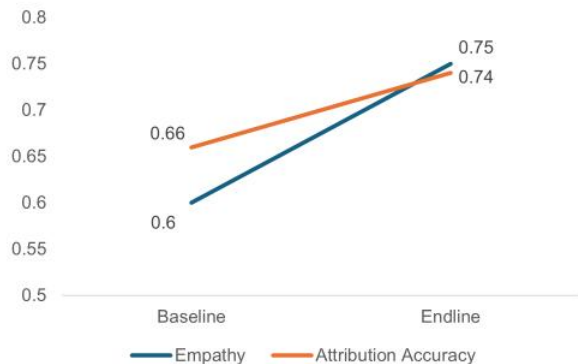
We observe positive and statistically significant changes in both empathy and children's ability to recognize emotions accurately

Baseline-Endline Changes in Conflict Resolution Orientations
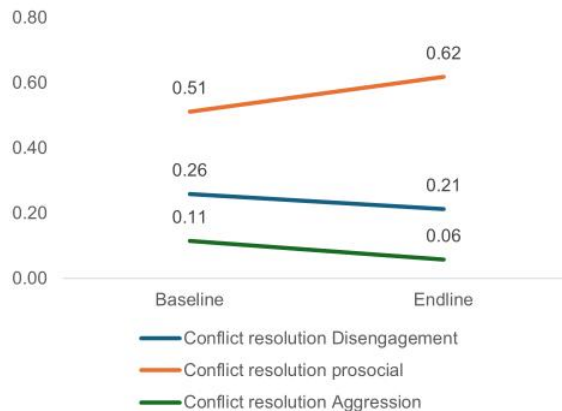
We observe a positive and statistically significant increase in children's use of prosocial skills, and a decline in their orientation to use aggression as a problem-solving strategy.
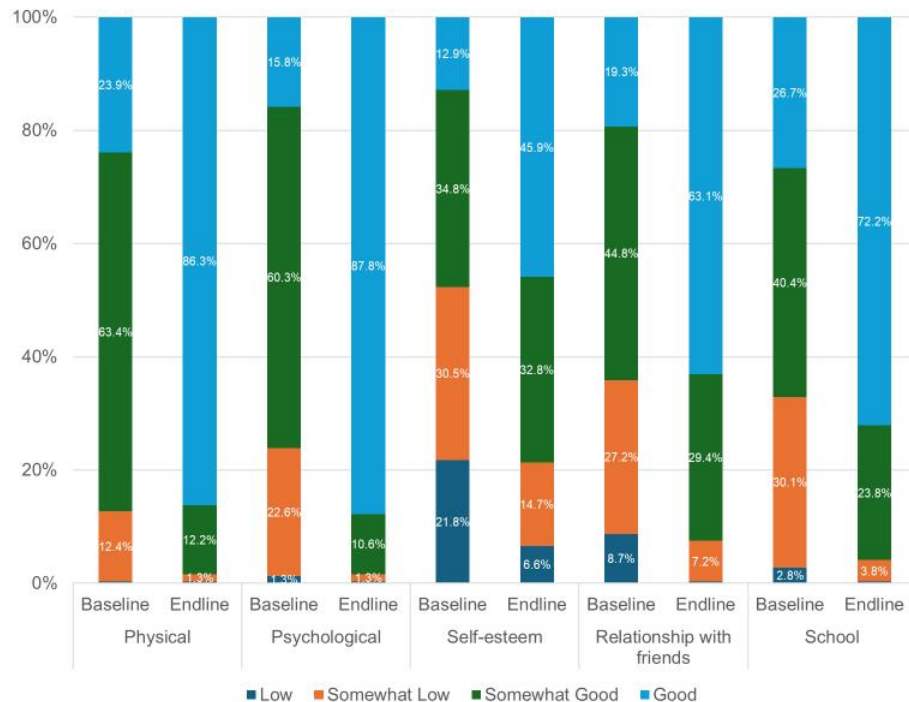
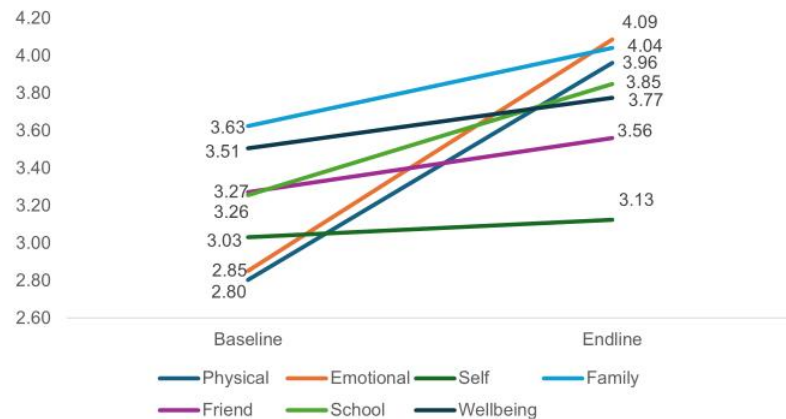Baseline-Endline Differences in Emotional Dysregulation
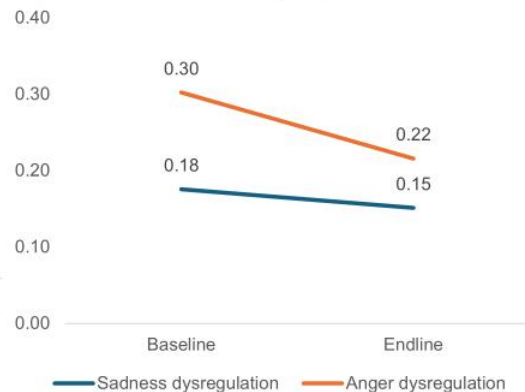
We observe a statistically significant decline in children's anger dysregulation, but no difference in sadness dysregulation

Percentage of Children Exhibiting Different Levels of Wellbeing at Baseline and Endline
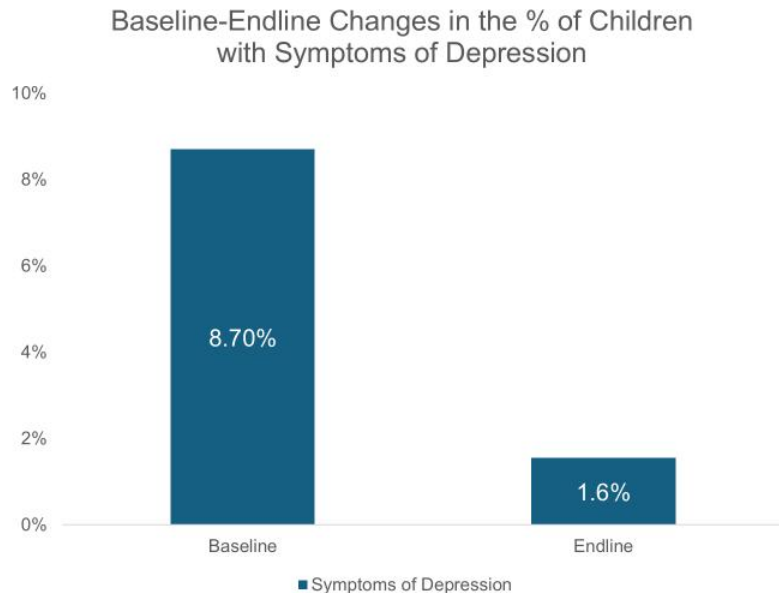

Change in Average Wellbeing Scores from Baseline to Endline

We observe positive and statistically significant improvements in overall wellbeing, and each sub-dimension

- **Physical wellbeing:** % of children with good levels improved by 59.5 percent points
- **Psychological wellbeing:** % of children with good levels of psychological wellbeing improved by 72 points.
- **Self-esteem:** % of children with good self-esteem improved by 33 points
- **Relationship with friends:** % of children with good relationship with friends improved by 48.8 points
- **Relationships at school:** % of children with good relationships at school improved by 45.5 points

Baseline-Endline Changes in the % of Children
with Symptoms of Depression

From baseline to endline, we observe positive improvement on mental health.

- The % of children suffering from depression symptoms declined by 7.1 points

The Big Picture:

Holistic Teacher Continuous Professional Development to integrate LtP Can...

Strengthen changes in teachers' self-efficacy, well-being, and classroom practices that can lead to improved education outcomes for children

The impact of LtP on teacher and child outcomes are being confirmed in a Randomized Controlled Trial, whose preliminary analysis have reveald same results.

PlayMatters

Thank you!

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