

LITERACY LABORATORY PROJECT RESULTS SUMMARY



— 2016 —



Background & overview

A consensus has emerged that global education outcomes need to shift from access to quality. Key to improving quality learning outcomes is the attainment of meaningful literacy in early primary.

Since 2010 Mango Tree has been implementing an early grade literacy project in northern Uganda.

The program's ultimate goal is to ensure that primary school children obtain meaningful and relevant reading and writing skills in local languages and English.

Mango Tree's program delivers



Quality
teacher
instruction



Access to
relevant
materials



Inclusive
approaches to
assessment



Parental
engagement
in schools



Strengthening
literacy
infrastructure

Since 2013, Mango Tree has been implementing a randomized control trial (RCT) to measure project outcomes and contribute to the body of evidence on relevant, cost effective and scalable local language literacy models.



The current phase of the RCT began in 2014 with a new cohort of Primary 1 pupils. In 2015, Mango Tree rolled out the intervention in Primary 2 classrooms, tracking pupils as their exposure to the literacy model continued through their second year of school.

The evidence provided by 2015 end line data suggests that Mango Tree's model is continuing to have significant success providing pupils with meaningful gains in literacy achievement.





Under the Literacy Laboratory Project Mango Tree has improved reading instruction by:

1 Developing and disseminating materials in both English and mother tongues

2 Training teachers and school administrators (head teachers, school management committees and parent-teacher associations)

3 Engaging with parents and implementing home literacy and reading programs

4 Conducting in-service training and professional development for teachers using program officers and government teacher tutors

5 Designing educational tools for learners with disabilities

6 Conducting reading assessments at school, household and district levels.



Mango Tree has also improved delivery systems for reading instruction by:

1 Using evidence-based decision making to inform education programming relevant to the needs of teachers and pupils in African classrooms;

2 Partnering with teacher training colleges to improve instructional delivery and support;

3 Conducting Early Grade Reading and Writing Assessments and using results to improve our interventions;

4 Advocating for policy changes through forums like the Basic Education Working Group, the Uganda Multi-Lingual Education Network and the Learning Achievement Platform

5 Developing and strengthening local language boards and home and community literacy initiatives.



Finally, Mango Tree has created greater engagement, accountability and transparency by:

1 Running writing, design and editing contests and developing leveled readers in Leblango and English in partnership with local writers and communities

2 Producing community radio shows

3 Holding community literacy events;

4 Producing and disseminating literacy report cards and results for discussion at household, community and district levels

5 Instituting a mentor teacher program

6 Conducting an external impact evaluation to determine which parts of our method work best and why.



Seeking Greater Evidence through Research

Throughout the project's phases, Mango Tree has applied evidence and learning's to adjust the intervention and encourage greater teacher effectiveness and higher pupil learning gains.

In 2013, we conducted an external impact evaluation of our model in 38 schools across the sub-region to gather data about the model's effectiveness in advance of implementing a larger scale up of the program. Results from the Randomized Control Trial (RCT) demonstrated very large effects on pupil learning. Our research also showed that, with effective training and support, teachers can and do modify their practice and put improved emphasis on reading, resulting in significant pupil literacy gains.

Based on this evidence, from 2014-2016 Mango Tree scaled up the project to additional government primary schools, replicating the intervention and model in Primary 1-3 classrooms over three years.

While the focus of the project has not changed from 2010 to date, the size of the project has grown tremendously – from eight schools in 2010 to 128 schools in 2014 to 158 schools in 2016 (with the addition of a 'pure control' cohort).



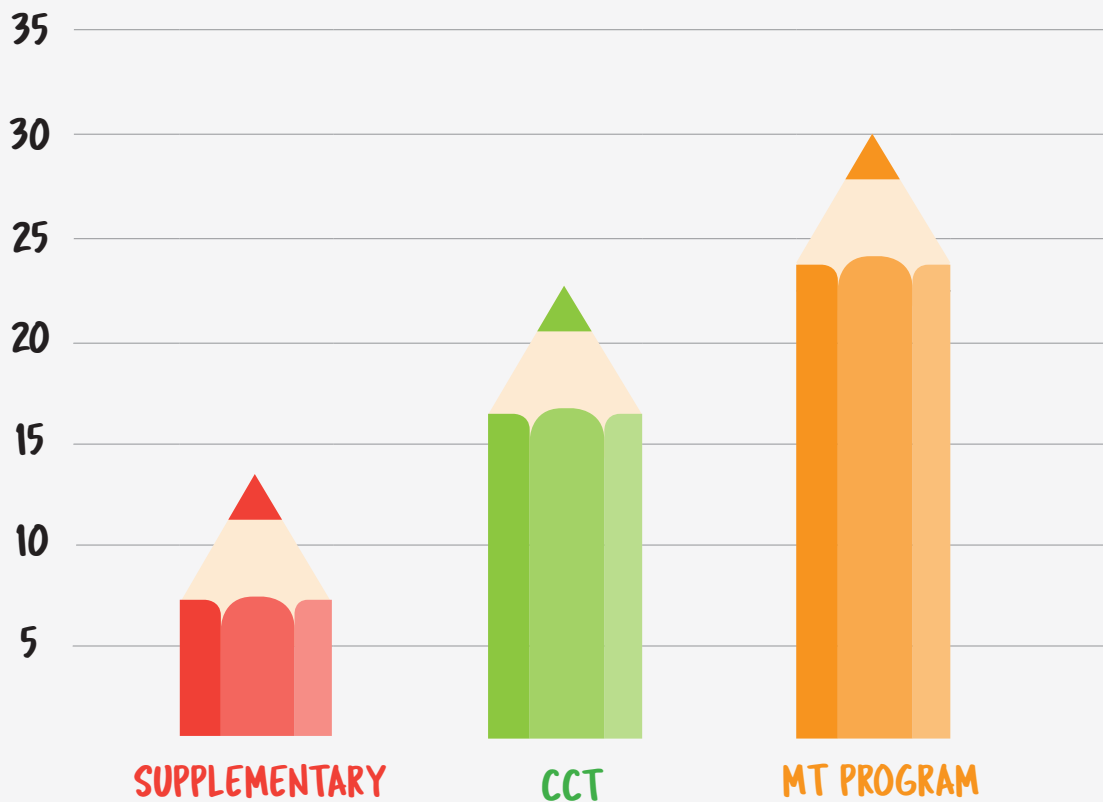
The current project is underscored by a larger, more rigorous impact evaluation of the teacher training and instructional model.

By project end, we will help define an effective literacy model for scale-up that demonstrates value-for-money in teacher training and support supervision approaches and materials provision. In addition to measuring short-term effects, the RCT will also measure medium-term impacts, program spillovers to other pupils and parents, cost-effectiveness and scalability.

Results will be used to improve the model and its delivery mechanisms, as well as contribute to the body of evidence on successful local language literacy models for African teachers and schools.



LETTER NAMING KNOWLEDGE P2 2015



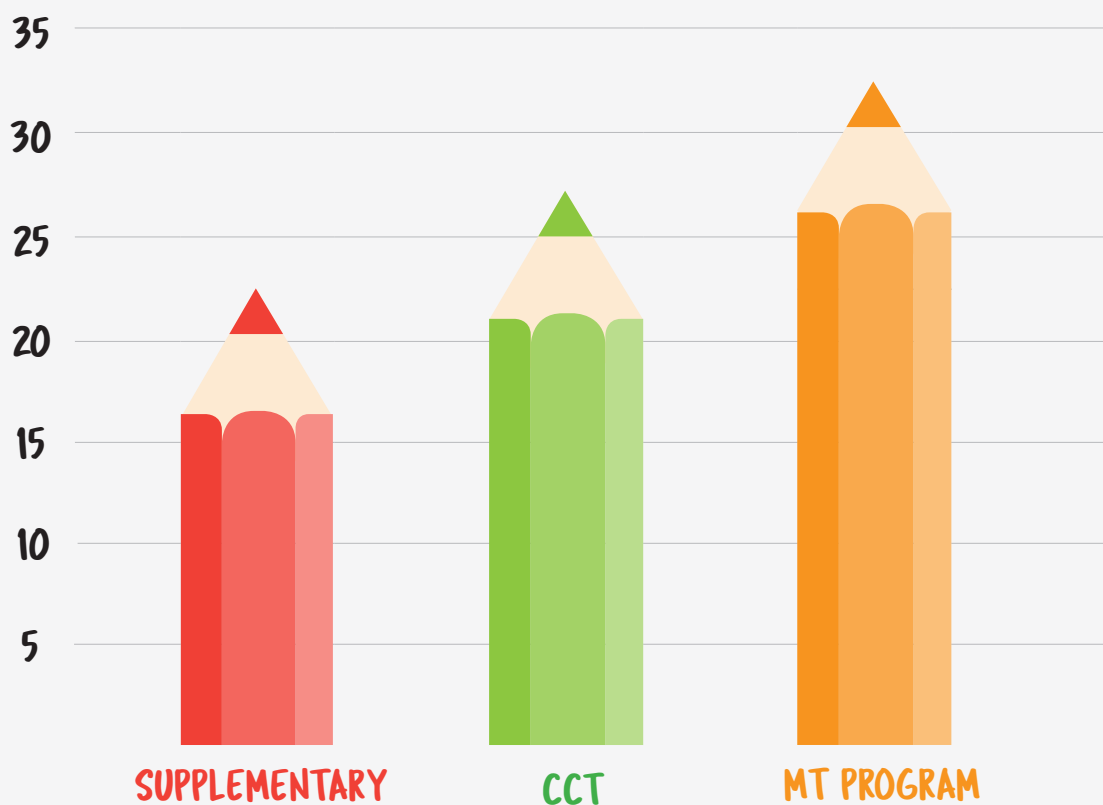
Literacy Gains under Mango Tree's Literacy Laboratory Project

Graph 1 shows the effect of Mango Tree's program on Primary 2 pupil's letter name knowledge after exposure to the Mango Tree program for two years of schools in Primary 1 and Primary 2.

Pupils in Mango Tree program schools can name 30 letters per minute on average – 25% more than pupils in government teacher tutor-supported (CCT) schools and 60% more than pupils in control schools.

Impressively, this fact also means that Mango Tree's Primary 2 pupils scored 33% higher on their end of year literacy assessments than Primary 3 pupils in control schools.

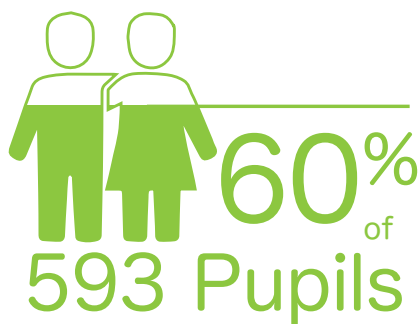
LETTER NAMING KNOWLEDGE P3 2015



This is evidence that investing for even one year in an effective literacy program improves learning outcomes for pupils over the longer term. This is an important result to continue exploring, as it has the potential to positively impact evidence related to education investment and expenditure in early grade reading programming in Africa.



The graphic below illustrates the most common answers pupils gave to this question in larger sizes, and less frequent answers in smaller sizes.



surveyed
gave very
positive
replies



Similarly, when these pupils same were asked what they disliked the most about school, the most frequent answer was 'nothing'.¹



Teacher's Attitudes and longterm effects

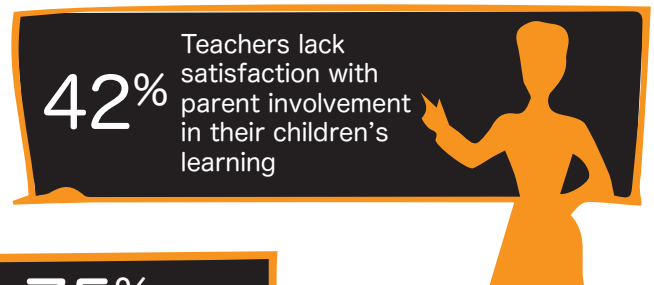
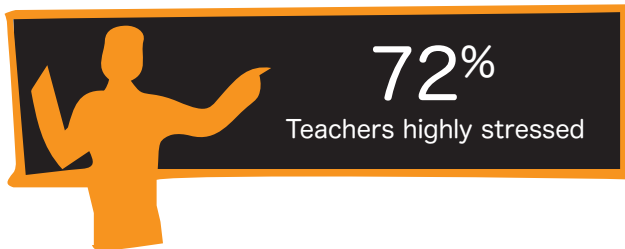
In addition to measuring pupil learning gains, Mango Tree conducts an annual teacher survey to understand how teachers feel about their role in the classroom, their profession and opinions about early grade literacy. The statistics provided by these surveys are designed to show the strengths and challenges teachers face on a daily basis to inform the interventions required to motivate and professionalize them over time. involvement in their children's learning.

Regardless of the study arm, almost all teachers agree that learning Leblango is important for early grade classes, and 90% of teachers thought that their pupils made some academic progress in 2015.

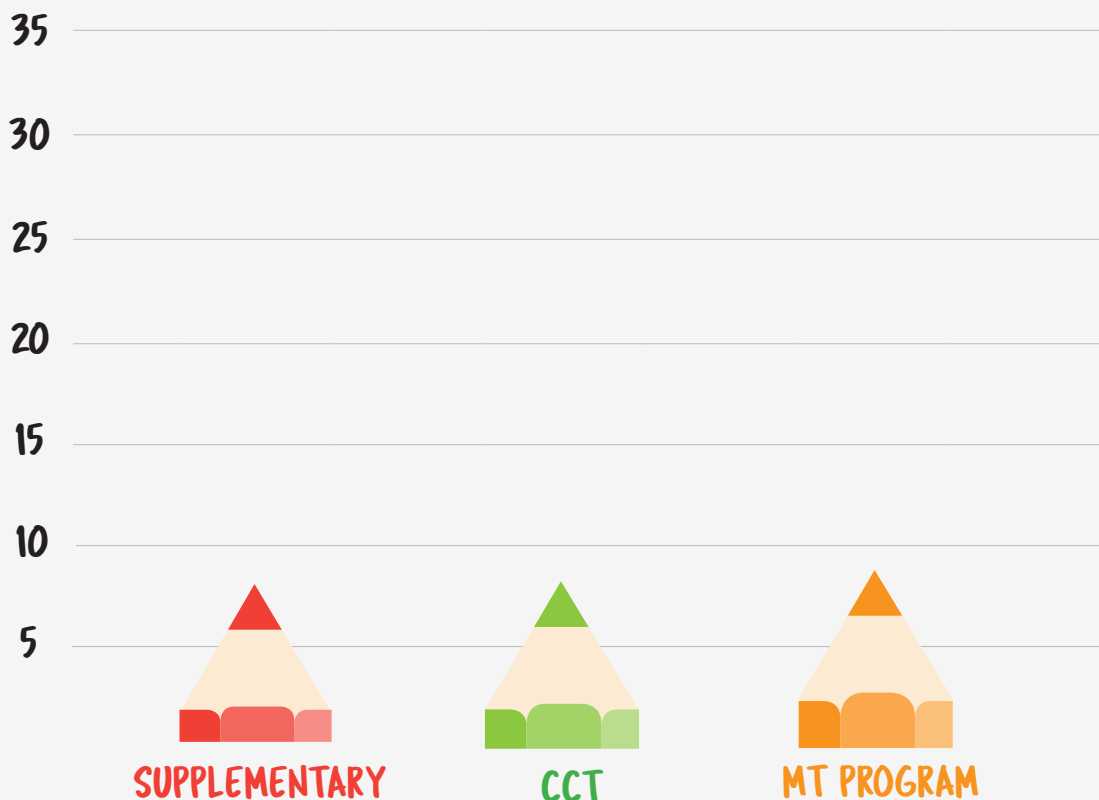
Overall, most teachers expressed satisfaction with their pupils and the hours that they work.² On the other hand, teachers reported not being satisfied with some specific aspect of their jobs.

² The average teacher reported spending between two and three hours preparing weekly lessons regardless of the study arm.


The majority of teachers reported being tense: when asked if they were highly stressed, 72% answered 'yes'. Furthermore, around 75% of teachers reported that they felt their income from teaching was not high enough, while 42% of teachers expressed a lack of satisfaction with parent involvement in their children's learning.



LETTER NAMING KNOWLEDGE PI 2015



Furthermore, end line examinations from 2015 provided evidence on the long run effects of offering trainings to teachers for only one year, and how this affects teachers' motivations and capacities to deliver on their instructional tasks. Through the pupil and teacher surveys, Mango Tree tested what happened one year after the model followed the 2014 cohort of Primary 1 pupils into Primary 2. In 2015, Primary 1 teachers did not receive any training, classroom support or continuous professional development from Mango Tree.



Results from the 2015 end line indicated that once Mango Tree leaves a class and stops training that particular grade level teacher, pupil literacy levels drop dramatically to pre-treatment values, as seen in Graph 3.

This could be an indication that teachers do not retain pedagogical skills if they are only treated one year, or it could be an indication that they lacked motivation and accountability to continue delivering on the literacy model and achieving results. Mango Tree is continuing to explore the important issue of teacher professionalization and motivation, as it is critical to sustaining the results of an intervention over the long term.



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