



MANGO TREE LITERACY LAB

The Use and Dissemination of Openly Licensed Storybooks and
Learning Materials by
Mango Tree Literacy Lab, Lira, Uganda



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MANGO TREE LITERACY LAB

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Acronyms

ASb	African Storybook
CC	Creative Commons
CCT	Coordinating Centre Tutor
CPD	Continuing Professional Development
DEO	District Education Officer
DIS	District Inspector of Schools
FICH	Foundation for Inclusive Community Help
MOE and MOES	Ministry of Education (and Sports)
MOI	Medium of Instruction
MTEE	Mango Tree Educational Enterprises
MTLL	Mango Tree Literacy Lab
NBA	Neil Butcher & Associates
NCDC	National Curriculum Development Centre
NGO	Non-Governmental Organization
OER	Open Educational Resources
PCV	Peace Corps Volunteer
PTC	Primary Teachers' College
RTC	Randomized Control Trial

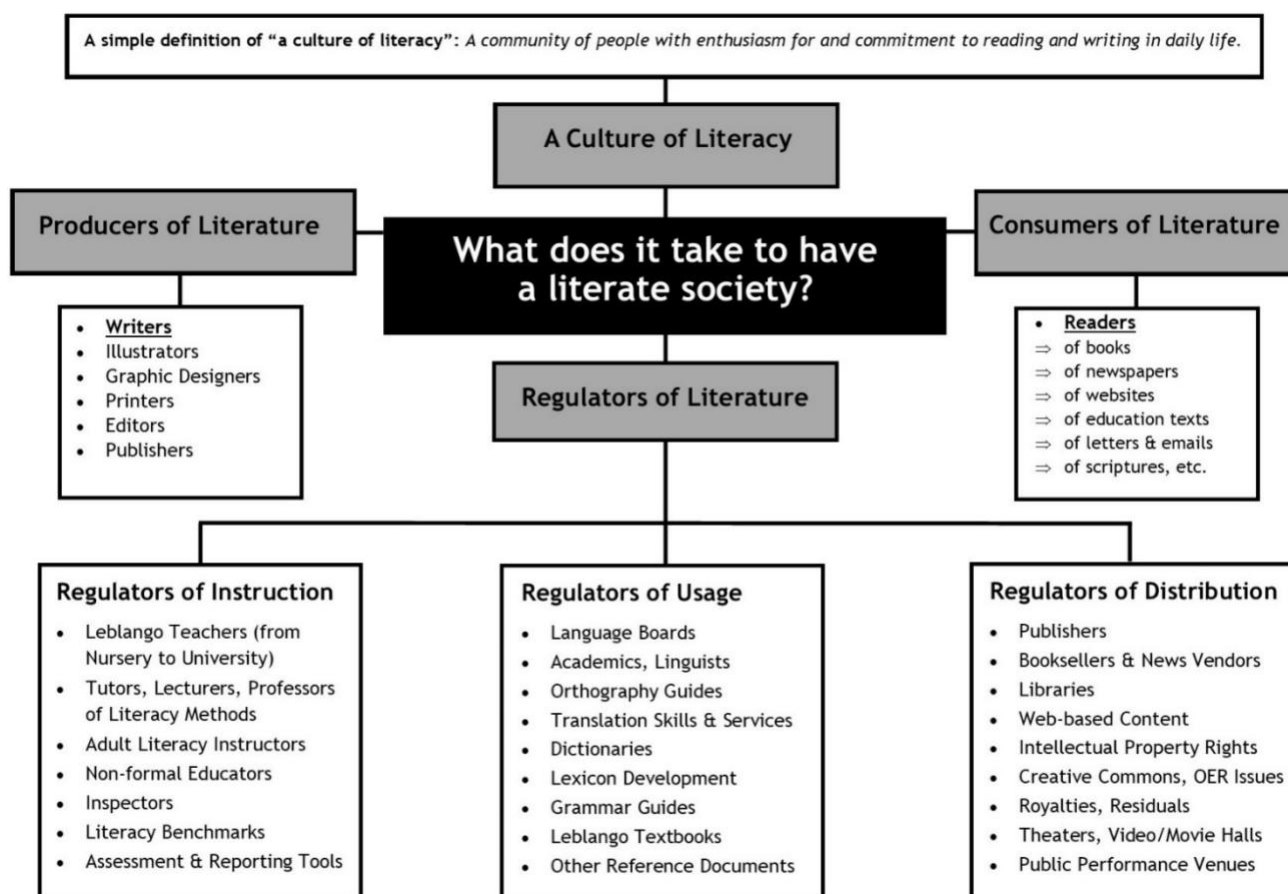
Background and scope of project

Background on Mango Tree Literacy Lab

Mango Tree Literacy Lab (MTLL) is a registered Ugandan Non-Governmental Organization (NGO) that believes that African children have the right to read, write and engage with ideas in a language they know and understand. Since 2010, Mango Tree has been supporting early primary literacy in the Lango Sub-region of northern Uganda. From 2010 to 2018 the literacy project was an activity run by Mango Tree Educational Enterprises (MTEE); a private limited company established in 2000 by Craig Esbeck. In 2017, the decision was made by the board of directors of MTEE to establish a Ugandan NGO to continue the literacy work as a separate entity since its work was not clearly aligned to the MTEE business model. In 2018, Mango Tree Literacy Lab (MTLL) was officially registered by the government of Uganda. For simplicity, we will refer to the entity completing the work in northern Uganda as MTLL throughout this document since the only change was in the legal status of the organization.

In the initial funding cycle, from 2010-2013, MTLL developed and piloted a literacy model for teaching Leblango and English in Primary 1-3 that included Pupil Primers, Supplemental Readers, Instructional Charts, Teacher’s Guides and over 50 Teacher Training Videos. MTLL completed a needs assessment and gap analysis in May 2010. From this workshop, with over 50 education stakeholders throughout the sub-region, a *Theory of Change* emerged that has informed MTLL’s project planning and activities to-date:

Figure 1: MTLL Theory of Change



In 2013, an external evaluation of MTLL’s model,¹ funded by the William and Flora Hewlett Foundation, pointed to large gains in pupil performance. Based on this encouraging data, MTLL was able to acquire funding to scale up its work and do additional research of its model. From 2014-2017, the intervention was studied with a longitudinal randomized control trial (RCT) with funding from the *Raising Learning Outcomes Program* under ESRC/DFID and Oxford University. This study found that literacy levels raised equivalent to 6.3 grades for pupils by the end of P4 in mother tongue for the full-cost program and 3.6 grades for the reduced-cost program² – among the largest improvements ever achieved for a randomized education intervention³.

In its most recent funding cycle (2017-2019), MTLL shifted its activities to support uptake of the Ugandan government’s recently introduced *National Literacy Model for P1 to P4*. A major component of MTLL’s work has been the implementation of a Teacher Mentor Program whose stated objective is, “to create a cadre of infant teachers in the Lango Sub-region with demonstrable expertise in the newly introduced *National Literacy Model* who can mentor other teachers to become proficient literacy instructors.” Over 200 teacher mentors in seven districts have recently graduated from this program and are now actively supporting their local schools and district administrators to ensure that the National Literacy Model is being implemented effectively.

Most of MTLL’s work during this funding cycle has been focused on the *Regulators of Instruction* in its Theory of Change. But during 2017-18, MTLL also piloted a Portable Library Project, with the primary objective of integrating more local language storybooks into early primary instruction through explicit classroom activities. We consider this an engagement in the *Regulators of Distribution* sector because we were experimenting with an innovation to the functional capacity of a library to get more books into the hands of children.

This project on the use and dissemination of openly licensed storybooks and learning materials, which is being funded by [Neil Butcher & Associates](#) (NBA) through the Hewlett Foundation is another example of a *Regulators of Distribution* intervention because it has provided the opportunity to learn about the impact open licensing could have on the distribution of our literacy materials as well as experiment with establishing a local market for our storybooks through sales by local vendors.

More information about MTLL’s work can be found on its [website](#), as well as on its [Facebook](#) page and [YouTube](#) channel.

Project context and language

The Lango Sub-region is home primarily to the Lango people. They are a Nilo-Hamitic ethnic group whose language is Leblango, a member of the Luo family of languages. The sub-region is currently composed of nine districts. As of July 2018, the population of the Lango sub-region is estimated at 2.3 million people, approximately 5.75% of the estimated 40 million Ugandans at that time. While not at the center of the Lord’s Resistance Army insurgency in northern Uganda, the Lango Sub-region was profoundly impacted by the conflict for nearly twenty years. The conflict ended about 2006 and post-conflict reconstruction funding poured into the region. This funding was what originally brought MTLL to this region of Uganda.

Literacy in the Lango Sub-region

Since this is a literacy-related project, here are a few statistics about literacy rates in the Lango Sub-region:

¹ Peters, Chelsea. (2014) *Primary Literacy Project Results Summary*. Retrieved from: <https://bit.ly/2zPa4YH>

² Buhl-Wiggers, Julie. (2017). *The Impact of Teacher Effectiveness on Student Learning in Africa*. Retrieved from: <https://bit.ly/2uQ9tmY>

³McEwan, Patrick. (2015). *Improving Learning in Primary Schools of Developing Countries: A Meta-Analysis of Randomized Experiments*. Retrieved from <https://bit.ly/2HMGQdd>.

Table 1: Adult literacy rates⁴

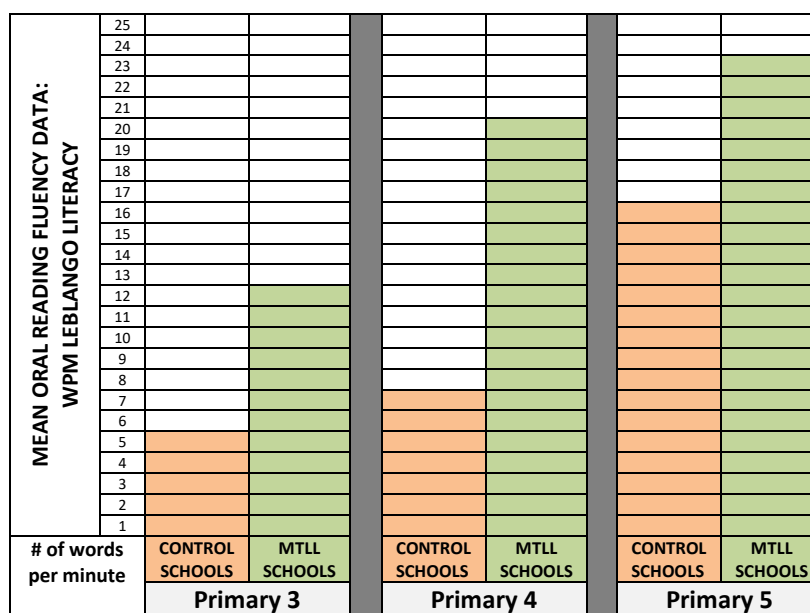
UNDP Development Report 2015	All Adults (18+ years)			Youth (18-30 years)		
	All	Female	Male	All	Female	Male
Literacy Rates of Northern Ugandan districts “Sporadically Affected” by civil conflict and cattle rustling including all of Lango except Oyam District, which was “Severely Affected” (2012-13)	60.7%	42.8%	81.8%	69.6%	56.2%	87.4%

Local Language Literacy in Primary Schools

A 2010 study by RTI, a non-profit research institute located in the United States, showed that 81.8% of pupils completing Primary Two in the Lango Sub-region could not read a single word in the local language.⁵

Here is some additional data on reading fluency from an external Early Grade Reading Assessment funded by DFID’s previously mentioned *Raising Learning Outcomes Program* in 2017, one year after completing MTL’s P1 to P3 pilot project.

Figure 2: Reading fluency one year after completing MTL P1 to P3 project



⁴ United Nations Development Program. (2015) *Uganda Human Development Report 2015*. Retrieved from: <https://bit.ly/3aqq147>

⁵ Piper, Benjamin. (2010). *Uganda Early Grade Reading Assessment Finding Report: Literacy Acquisition and Mother Tongue*. Retrieved from https://www.researchgate.net/publication/330977301_Mother_Tongue_and_Reading_Using_Early_Grade_Reading_Assessments_to_Investigate_Language-of-Instruction_Policy_in_East_Africa.

Language Policy in Government Primary Schools

Although English and Swahili are its official languages, Uganda is a multi-lingual country, with around forty local languages spoken. The Government of Uganda has sought, through a series of policies, to promote local languages in education. The government White Paper on Education for National Integration and Development (1992) states that local languages should be used as the medium of instruction (MOI) in all education programs up to Grade 4 of primary school. Article 6.3 of Uganda's Constitution says that "any language may be used as a medium of instruction in schools or other educational institutions." In 2005, the early primary curriculum was revised to emphasize that the home language is the medium of instruction from P1-P3 with a transition year in P4 where both the local language and English are the MOI. The policy also states that children learn to read and write in an area language in P1 before being introduced to reading in English in P2.

In 2012, USAID provided funding for the government to develop local language and English primers in twelve local languages, including Leblango. In 2014, the Ministry of Education and Sports began rolling out their new National Literacy Model, a series of textbooks and teacher's guides from P1-P4 in the Lango Sub-region. As of 2020, nearly all the government primary schools in the Lango Sub-region have been supplied with these textbooks.

Status of the Leblango Orthography

The Leblango orthography has undergone three phases of development beginning with Latin script which has been used since 1967⁶. The second phase was followed by a *Unified Standard Orthography for Lwo Languages* (Okonye, 2007), which was never circulated.⁷

In 2010, the third phase was led by the Lango Language Board (LLB) with linguistic expertise from SIL, an international faith-based nonprofit organization, and funding from Mango Tree. The aim was to ensure that the Leblango sound system was adequately represented in writing prior to the development of early literacy instructional materials by Mango Tree. The process began with a study of the existing texts in Leblango in order to identify the prevailing discrepancies in those selected documents. Documents including the Bible, newspapers and literacy texts were thoroughly analysed. After several workshops, a draft orthography was produced. The major revisions that occurred in the orthography were the addition of four vowel symbols (ë, ï, ö and ü) and two tonal marks (/ and \) which are placed in front of a verb to help the reader identify the tense.

The LLB conducted community outreach visits in the whole of the Lango Sub-region during 2012 to test and seek community approval of the revised orthography. This was done through community dialogues, monthly radio talk shows and text messaging. Revisions were later made based on the community's feedback. The revised version was printed and copies were presented to the National Curriculum Development Centre (NCDC) for approval (Ocen, Dokotum, Rempel, & Akaa, 2013)⁸. Therefore, the 2013 approved orthography is the current writing system for the Leblango speech community.

As part of its work to support the *Regulators of Usage* component of its *Theory of Change*, MTLL has authored documents to facilitate the acquisition and mastery of the revised Leblango writing system by adults, especially teachers. These include the *Leblango Transition Primer* and *Gurama më Lëblaŋo*. In addition, Mango Tree has produced two primary dictionaries in Leblango. One is a picture dictionary for P1 and P2 pupils. The other is a children's dictionary designed for the P3 curriculum.⁹ There is currently

⁶ Eberhard, D. M., Simons, G. F., & Fenning, C. D. (2019). *Languages of the world. Ethnologue: Lango*. Retrieved from <https://www.ethnologue.com/language/laj>

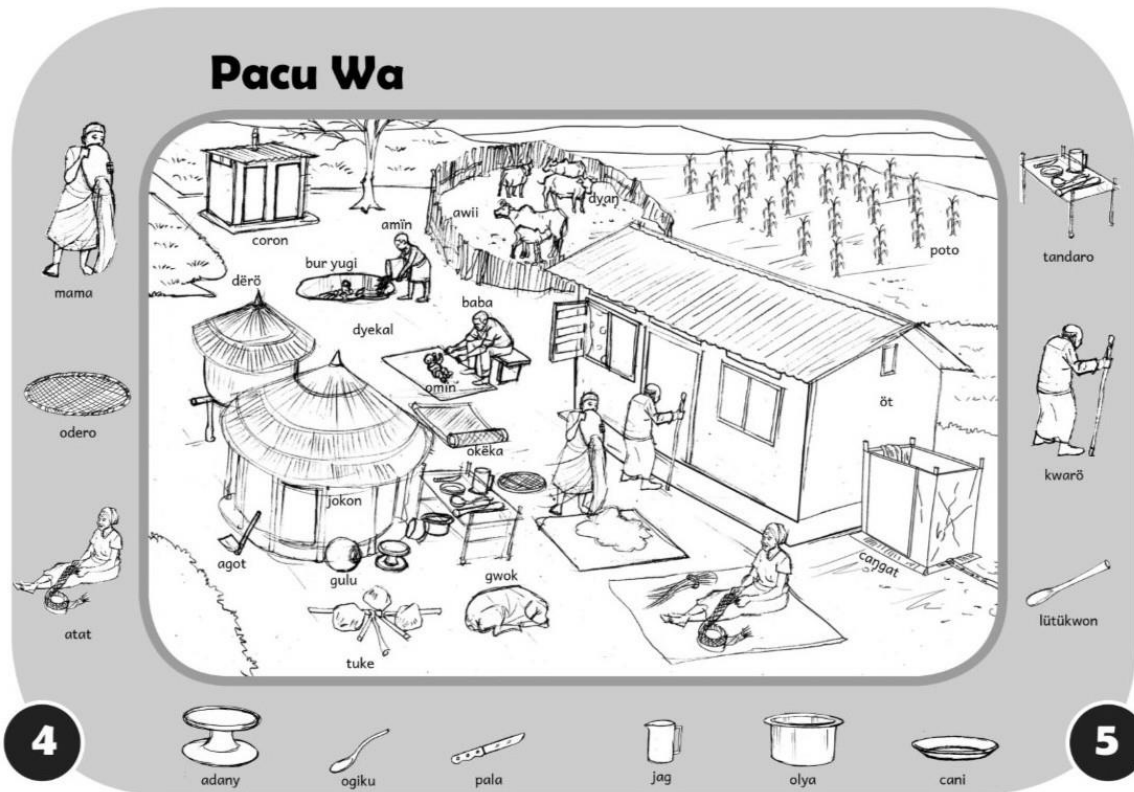
⁷ Okonye, G. (2007). *A Unified Standard Orthography for East African Lwo Languages: Acoli, Dholuo, Dhopadhola and Lang'o*. Centre for Advanced Studies of African Society.

⁸ Ocen, L. L., Dokotum, O. O., Rempel, R., & Akaa, D. (2013). *A Standardized Orthography and Spelling Guide for Lëblaŋo*. Lira: Lango Language Board.

⁹ Unfortunately, neither dictionary is available online.

no adult dictionary in the approved orthography and secondary school teachers are still teaching from instructional materials developed from the 1967 orthography, so there are many issues remaining to be addressed under the *Regulators of Usage* category.

Figure 3: P1 and P2 picture dictionary



Books and Literature in Leblango

Based on the *Survey of Children's Reading Materials in African Languages in Eleven Countries*,¹⁰ Leblango had the third highest total of books in the local language after Luganda and Lugbara in Uganda. In the breakdown of the types of books surveyed, about 93% of the books were student or teacher textbooks or reference materials. Only 7% were narrative storybooks.

At the time of this survey, MTLL had developed three teacher guides, nine pupil primers, an orthography guide for teachers and about 12 supplemental readers with three levels: (1.) Beginning (< 10 words per page); (2.) Developing (avg. 10-50 words per page); (3.) Experienced (avg. > 50 words per page). Since that time, we have added about 40 additional levelled storybook titles designed for primary school readers. The books were developed through identification and training of local writers and illustrators, thus supporting activities in the *Producers of Literature* component of our Theory of Change.

Project goal, objectives, and geographic region

Goal

Increase access to and readership of Mango Tree's line of children's books through open license models for online sharing and offline market development.

¹⁰ RTI. (2015). *Survey of Children's Learning Materials in African Languages in Eleven Countries – Final Report*. Retrieved from: https://ierc-publicfiles.s3.amazonaws.com/public/resources/Report_Survey%20of%20Children%27s%20Reading%20Materials%20in%20African%20Languages%20in%20Eleven%20Countries_Global_05_2016.pdf.

Objectives

- Make a selection of books accessible online through an open license strategy
- Make a selection of books accessible offline through a local sales model
- Work together with a selection of online publishers.
- Build the capacity of the local printing industry in the Lango Sub-region.
- Establish an effective system of selling books in the regional market.
- Identify the type of books local readers are interested in purchasing.
- Identify the price point for selling books in the regional market.
- Learn from both the on/offline share/sales channels about the size and interests of the audience and about the commercial potential of both strategies.

In addition to the goal and objectives outlined in our proposal, this project provided MTLL with its first opportunity to explore in depth the *Consumers of Literature* component of its *Theory of Change*, by researching the purchasing patterns of adult Leblango speakers of its children’s storybooks.

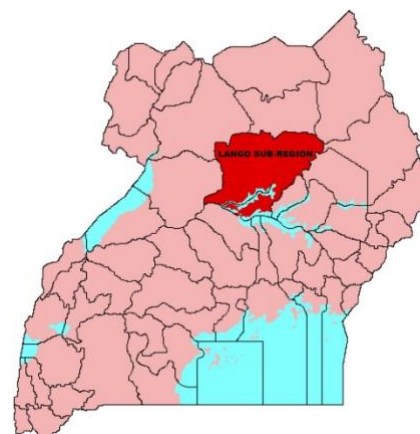
Project scope

Offline: Seven districts in Lango Sub-region of Northern Uganda
(Alebtong, Amolatar, Dokolo, Kole, Lira, Otuke and Oyam)

Online: [Can’t Wait to Learn](#) e-learning platform: Northwest Uganda¹¹
[African Storybook](#) (ASB) online publishing platform: all Africa; global¹²
[Mango Tree Literacy Lab Website](#): Uganda, East Africa, International

Geographic region

The Lango Sub-region is located in the north-central region of Uganda. MTLL worked in seven of the nine districts, primarily with the 90 primary schools involved in its Teacher Mentor Program. These are rural Ugandan schools, with limited infrastructure and no access to electricity. Most are accessible by marram roads that are frequently impassable during the rainy season.



Research methodology, data collection, and analysis

Research aims

The aims of the research within this project:

- Measure the interest in both local and international markets in our children’s storybooks.
- Experiment with and document distribution systems for reaching our customers.
- Identify the types of books our customers are most interested in.

Research design

We considered this an exploratory research design because it was conducted to gain a better understanding of an existing problem, but without the need to provide conclusive results. We started

¹¹ War Child Holland downloads the resources to tablets for use in the Can’t Wait to Learn initiative.

¹² Our attempts to upload to ASb were not successful and are described below.

with a general question: *Can we successfully increase the demand for books in local language through improved on- and offline distribution channels that can be sustained over time?*

We have talked about the need to expand the number of local language books available to the general population since the inception of our project ten years ago. As our *Theory of Change* indicates, it's not enough to improve instruction and create more books, you also must evolve the distribution channels through which individuals have access to written materials.

Developing a market for local language children's books in a rural African setting is not something that has much prior knowledge to draw from, so an exploratory research design is appropriate because this research model is often used to identify issues for future research. This project has certainly raised new questions that we look forward to examining in future projects.

We collected both quantitative and qualitative data. The quantitative data was focused on the number of books sold, by which vendor and in what quantities. This data was collected primarily through sales receipts and monthly reports by the sales manager. Qualitative data was collected through reports from Mango Tree staff and from the Coordinating Centre Tutors and teachers who were involved in book sales. We also did key informant interviews with selected vendors to get a deeper insight into their experience engaging with customers.

Details of the research process

Figure 4: Project timeline

Year:	2019												2020		
Month:	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
PRODUCT DEVELOPMENT & MANAGEMENT															
Revise and redesign the 12 titles															
Select printer and handover for printing															
Prepare store, inventory system and delivery															
Inventory of entire stock															
HUMAN RESOURCES															
Recruit, hire and train a Sales Manager															
Recruit, hire and train local Sales Vendors															
Sales Manager under contract															
Sales Vendors under contract															
PUBLICITY															
Website design brief completed															
Research Web Hosts and Purchase															
Design and launch website															
Ad campaign on local radio															
African Storybook Project design brief															
Local Radio Programming															
Parent Literacy Events (Teacher Mentor Schools)															
Pan-Africa Literacy Conference - Kampala															
Lango Cultural Festival - Lira															
District Head Teacher Meetings															
SALES ACTIVITIES															
Create sales reporting and management tools															
Prepare monthly sales reports															
Monitoring Vendor Sales															
Monitoring Teacher/School Sales															
Monitoring Staff Sales															

Local Book Sales Agents

- Vendors (April – June)
- Teachers (July – December)
- CCTs (April – December)
- MTLL Staff (April – to date)

Table 2: Books sold per month

TOTAL BOOKS SOLD PER MONTH	
March-April	679
April-May	118
May-June	142
June-July	302
July-August	1,894
August-September	2,000
September-October	368

October-November	922
November-December	581
December-January	2,279
TOTAL SALES	9,285

Table 3: Books given away or damaged

Total Books Given away or damaged	
School Sales Kits	1,170
District Officials	210
Coordinating Centre Tutors	238
Loro PTC & graduation	202
Total books given away	1,820
Total damaged books	53

Table 4: Point of sales

Trained Vendors	10%
MTLL Sales Manager	25%
Other MTLL Staff	10%
Teachers and Schools	35%
CCTs	5%
Walk-In Sales	3%
Workshops / Public Events	12%

Table 5: Customers

Parents	40%
Schools/ Head Teachers	25%
NGO's	20%
General Community	15%

Table 6: Total sales by title¹³

Title in English	Level	Total
1. Who Winnows the Millet?	1	663
2. I Can Do This!	1	817
3. Handwriting Book Level 1 Workbook	1	682
4. Visual Discrimination Workbook	1	851

¹³ The section on parents discusses why certain books were more popular than others. In addition, this table does not count the *I Can Read and Write* term three book as the least popular even though sales were low because it was part of the general sale of these government primers, which were in fact MTLL's best sellers. The term three books came out at the end of the year when there weren't as many sales opportunities, which accounts for the low number of sales.

Title in English	Level	Total
5. Rodger & Badger	1	668
6. Who Makes the Honey?	1	542
7. The Best Speller	1	539
8. Wangari Maathai Biography	2	663
9. Leblango Fables	2	941
10. Ugandan Fables	2	857
11. Bible Story Collection	2	954
12. Rhinos in the Forest	3	695
13. I Can Read and Write - primary 1 term 1	NA	797
14. I Can Read and Write - primary 1 term 2	NA	1,196
15. I Can Read and Write - primary 1 term 3	NA	293

TABLE KEY
Bestselling books
Least popular books

Project Documentation

Monthly Sales Reports: The sales manager compiled all sales each month into one document that was shared with the Finance and Program Managers.

Vendor Order/Report Forms: Vendors filled an order form when they purchased books for sale. Later in the project, when teachers were given the opportunity to sell books, the form was repurposed for their use. Since they were not purchasing the books, but given the books on credit, there we added a component for returning the unsold books.

Receipt Books: Used by the MTLL staff for non-vendor purchases.

Literacy Specialist Weekly Report: The reporting form for the three MTLL Literacy Specialists included a space for noting any activities or comments related to the NBA Early Literacy Project.

Coordinating Centre Tutor (CCT) Termly Report: The form the CCTs from Loro Primary Teachers' College used to report their project activities included a space for noting any activities or comments related to the NBA Early Literacy Project.

Teacher Mentor Report: Teachers reported on the book sales activity during Education Week.

Figure 5: We took photographs during vendor training and parent activities with book sales.



Advocacy

Regional Education Learning Initiative Meeting: June 2019, Entebbe

Our donor organization, [Wellspring International](#), holds regular meetings with all the organizations it supports. At their East Africa Regional Meeting in June 2019, we did a short, joint presentation with [Foundation for Inclusive Community Help](#) (FICH), another local NGO receiving funding from Wellspring. FICH was one of our first vendor partners. Graduates from their youth entrepreneurship program were recruited to sell our books.

Pan-African Literacy for All Conference: August 2019

MTLL held a one-hour colloquium presentation on August 21st. The panel included the three Mango Tree Literacy Specialists, two CCTs from Loro Primary Teachers' College and two teachers in our Teacher Mentor Program. During the presentation we discussed the importance of having supplemental readers in local language as part of a comprehensive early literacy program. We also had a booth where we sold our storybooks. You can watch a two-part video on the presentation on our YouTube channel by following this [link](#).

Project Advisory Committee (PAC) Meetings: March and October 2019

We meet with the key stakeholders with which we hold a Memorandum of Understanding (MoU) twice a year. This includes a representative from each District Local Government (usually a District Education Officer, District Inspector of Schools or an assigned focal point officer) and from Loro Primary Teachers' College (both the Deputy Principal Outreach and a Coordinating Centre Tutor representative). At both meetings we made presentations about the NBA Early Literacy Project and provided representatives with sample books. District officials advocated with head teachers to purchase our books, especially the National Literacy Model Pupil Book for P1.

Presentation to NCDC on Parent Education Interventions, October 2019

Craig Esbeck made a PowerPoint presentation at the National Curriculum Development Centre to a group of NGOs that are all working on interventions related to parent engagement in primary education as part of a planning and content development meeting for a parent education curriculum being developed by NCDC. We also shared copies of our [Parent Literacy Guide](#) and sample storybooks to all the participants which numbered about 30 organizations in total.

Dissemination of resources and MTL website

Warchild Holland

[Warchild Holland](#) War Child works to improve the resilience and wellbeing of children living with violence and armed conflict. MTL collaborates with Warchild Holland on its "[Can't Wait to Learn](#)" initiative.

"Can't Wait to Learn" Digital Platform

- 27 Mango Tree storybooks were digitally customized for tablets for the *Can't Wait to Learn* platform.
- Data from [Warchild Uganda](#), the national office of the International NGO based in The Netherlands, indicates that 2,836 children have played the reading game on 1,444 tablets. Their report to us as of February 25, 2020 is that they have not yet done any formal evaluation of the activity.

MTL website

Our communications intern, a Peace Corps Volunteer extending her stay in Uganda after her service ended, oversaw the website development. After developing a rubric to evaluate different website providers, she recommended Wix as the best match for our needs. The intern used a participatory design process that allowed staff to provide input. Based on her feedback, it was difficult to complete certain components of the website construction because of our slow internet services. This limited the number of books that were uploaded to the website. We currently have the following documents available for download on our website:

- [Storybooks](#) - Leblango and English (8 books)
- [Parent Literacy Guidebook](#) – Leblango and English
- [Leblango Transition Primer](#) – Directions in English
- [Teacher Training Manual](#) – English
- [Gurama më Lëblango](#) (Leblango grammar. English with Leblango.)
- [Portable Library Teacher's Guide](#) – English
- [Northern Uganda Literacy Program](#) (NULP): Teacher's Guides and Pupil Books (27 titles)
- [NULP research reports](#) (3 reports)
- [Additional Research Links](#) (13 links listed below NULP reports)

We hope to resume uploading documents in the future through improved Wi-Fi service or other technical solutions.

This is the information we were able to obtain from the website's analytics dashboard. It only reports for the last eight weeks (February 22 – April 19, 2020).

- 117 visitors
- 77 unique visitors
- 53% of traffic from search engines
- 44% of traffic entering from URL directly
- 2% from Facebook

- 1% from other website links

MTLL Creative Commons Licensing

MTLL storybooks and other materials are registered with a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#). The terms of this license include:

- **Attribution** — You must give appropriate credit, provide a link to the license, and indicate if changes were made.
- **NonCommercial** — You may not use the material for commercial purposes.
- **ShareAlike** — If you remix, transform, or build upon the material, you must distribute your contributions under the same licence as the original.

MTLL's mission is to promote reading, writing, teaching, and publishing in African languages. Our “laboratory” is the Lango Sub-region of northern Uganda. It’s important to us that our work is recognized as part of this larger movement and that future users appreciate the context and the culture in which the books were created. We believe in co-creation and want to contribute to other like-minded individuals and organizations, but if the content is elaborated upon, we want to be sure that new readers or creators can follow the trail of attribution.

Uploading storybooks to online platforms

ASb was the only online platform, aside from our website, that we investigated. The format requirements for their books was quite different from how our books are designed. It would have required significant design alternations to our books for which we did not have a budget. Additional issues pertaining to uploading storybooks are discussed below.

About the storybooks

Table 7: Books selected for the NBA early literacy project

Title in English	Description	Level
1. Who Winnows the Millet?	A bilingual Leblango/English book that teaches family responsibilities.	1
2. I Can Do This!	A bilingual book with a repetitive format that teaches different action verbs.	1
3. Handwriting Book Level 1 Workbook	A consumable workbook that teaches basic handwriting patterns with fun exercises.	1
4. Visual Discrimination Workbook	A consumable workbook of fun and engaging visual discrimination games and activities.	1
5. Rodger & Badger	A book modelled after the “Goofus and Gallant” cartoon in the American magazine, <i>Highlights</i> .	1
6. Who Makes the Honey?	1 in a series of 3 books about the cartoon characters Goat and Hippo.	1
7. The Best Speller	A picture book about the regional spelling bee that also teaches about adjectives.	1
8. Wangari Maathai Biography	1 in a series of 4 biographies about African leaders.	2
9. Leblango Fables	1 in series of 3 books of traditional stories from Lango. Written and illustrated by local talent.	2
10. Ugandan Fables	1 in a series of 3 books of traditional stories from different tribes in Uganda.	2
11. Bible Story Collection	A collection of four well-known Bible stories.	2

Title in English	Description	Level
12. Rhinos in the Forest	An adventure story featuring the twins Apio and Ocen modelled after <i>Nancy Drew Mysteries</i> .	3

Original Storybook Development Process

These books were selected from our catalogue of 50 children’s storybooks. The books were developed for different projects over the years, although the majority were created during the 2014-2016 funding cycle. The oldest book is “Rodger and Badger” which was originally written in Leb Acholi for a USAID-funded project in 2004-05. The “Bible Story Collection” began as a project with the Leb Kumam Language Board. “Leblango Fables” and “Rhinos in the Forest” were supplemental readers in our Mango Tree Literacy Model. The eight other books were all developed with funding from Comic Relief from 2014-2016. In all cases, the books were written and illustrated by Ugandan artists under Mango Tree’s supervision. Extensive pre-testing was done on all the books prior to printing. All of the books are written in Leblango except for two bilingual books with English text included in a smaller font below the Leblango text.

In addition to the twelve books funded by this project, we also realized that the National Literacy Model pupil textbooks were printed with a [CC BY](#) license. We used revenues from the book sales to print these books and distributed them alongside our storybooks. As a previous data table indicates, this set of three books (terms one-three) proved to be the best-selling title.

We tried to select books that would give us as much information as possible about the types of books local customers would be most interested in. We have books at three levels:

- Level 1-**Beginning**: < 10 words per page
- Level 2-**Developing**: 10-50 words per page on average
- Level 3-**Experienced**:> 50 words per page

There is no computer algorithm that can measure readability in Leblango at the moment, but along with the number of words per page, we also edited the books to ensure that the simpler books used shorter words and sentences and provided more supportive illustrations.

Figure 6: Visual discrimination puzzle: odd one out



We also included two “consumable” activity books: a handwriting practice book and a book with visual discrimination puzzles in which the reader is encouraged to draw lines to match similar items or circle hidden items in a larger picture.

We selected books that featured African cultural themes: a storybook of fables from Lango and a collection of Ugandan fables from different tribes, as well as a book about Wangari Maathai from our African Leaders Series. There were also several books that were culturally neutral: *I Can Do This!*, *Who Makes the Honey?* and *Rodger and Badger*.

We included one book each from a larger series:

- Leblango Fables Series (3 books)
- Ugandan Fables Series (3 books)
- Goat and Hippo Stories (3 books)
- Religious Education Stories (2 books)
- African Leaders Series (5 books)
- Handwriting Series (5 books)

Printing Cost Comparison: Kampala versus Lira Printing Company

We always try to use the most local option available, but in this instance, we decided to go with a Kampala printing company over the local printing company we often use for smaller orders. Not only were the prices cheaper (because of the large order) but we were concerned that the Lira printing company did not have the capacity to manage the quality control for an order of this magnitude.

Table 8: Cost comparisons between printing in Kampala or printing in Lira

No. of Titles	No. of Pages	No. of Books	Kampala Rate	Lira Rate	Kampala Total	Lira Total
2	20	2000	804	960	3,216,000	3,840,000
1	24	2000	900.6	1104	1,801,200	2,208,000
2	28	2000	921.8	1232	3,687,200	4,928,000
4	32	2000	1063.7	1280	8,509,600	10,240,000
1	36	2000	1078	1440	2,156,000	2,880,000
0	40	2000	1127.1	1600	-	-
1	44	2000	1338.8	1760	2,677,600	3,520,000
0	48	2000	1354.6	1920	-	-
1	52	2000	1370.5	2080	2,741,000	4,160,000
				TOTAL	24,788,600	31,776,000
Cost of Printing Table: Kampala vs. Lira Print Companies				SAVINGS	UG Shillings	6,987,400
					US Dollars	1,914

(Exchange rate US \$1.00 = UGX 3,650/=)

We initially thought that we would have a range of price points for our books with the 20-28 page books selling for 1,500/=, the 32-40 page books selling for 2,000/= and the 44-52 page books selling for 2,500/=, but upon further reflection, we decided it would over-complicate our sales process and selected 2,000/= for all the books.

Economies of scale

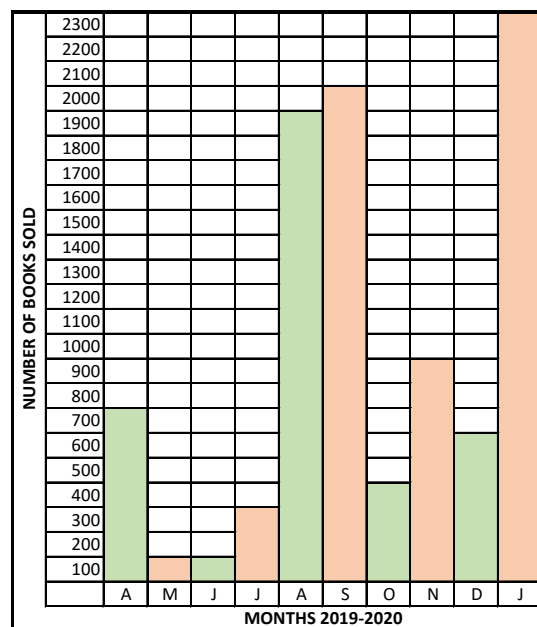
We don't have data from this project about the impact economies of scale could have had on printing costs, but we found an Excel Spreadsheet from the same print company for a portable library project we implemented in 2017. At that time, we also ended up with a print run of 2000 copies per title, but the company also gave us costings for print runs of 5000 and 10,000 copies per title. As Table 9 indicates, if we had the funds and the demand, we might have reduced the cost of production from 26-34% by ordering higher print runs.

Table 9: Data from a 2017 Excel Spreadsheet with Price Quotes for Different-Sized Print Runs

Data from a 2017 New Vision Price Quote	Print Run: 2000 copies	Print Run: 5000 copies	Savings	Print Run: 10,000 copies	Savings
20 page book	791.1	576.6	27%	502.9	36%
24 page book	807.5	612.1	24%	569.9	29%
28 page book	851.7	664.1	22%	613.8	28%
32 page book	1062.6	719.3	32%	615.7	42%
			Average	26%	34%

Book Sales

Figure 7: Monthly book sales



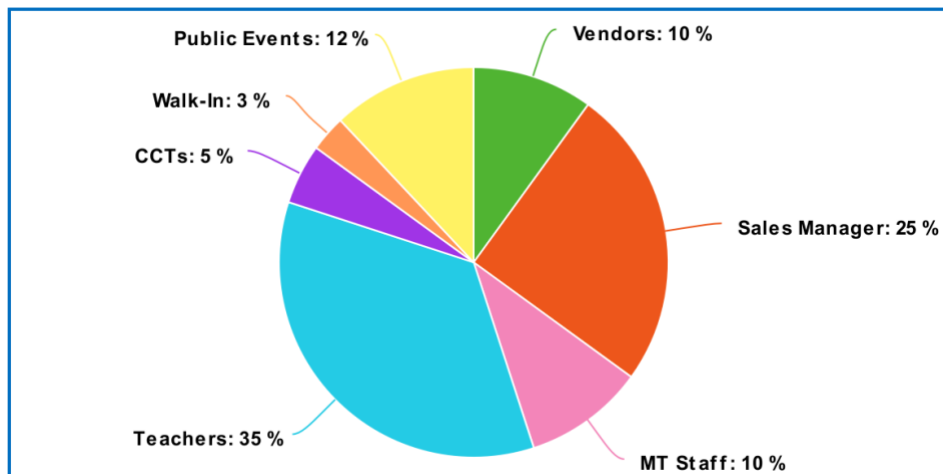
April sales represent the initial orders from our three vendors. Book sales spiked in August/September because we had distributed books to teachers in our Teacher Mentor Program in July and we were collecting their sales data in August and September.

Sales spiked again in January because we attended the beginning-of-the-year head teacher meetings held in each district in order to advertise and sell our print version of the Ministry of Education's Primary One Term One Pupil Textbook along with the storybooks.

There was another smaller spike in November because of teacher sales at the end-of-year Academic Recognition Day events held at the school level.

We had seven primary sales points. Figure eight expresses the percentage of books sold by each sales point.

Figure 8: Sales point by percentage



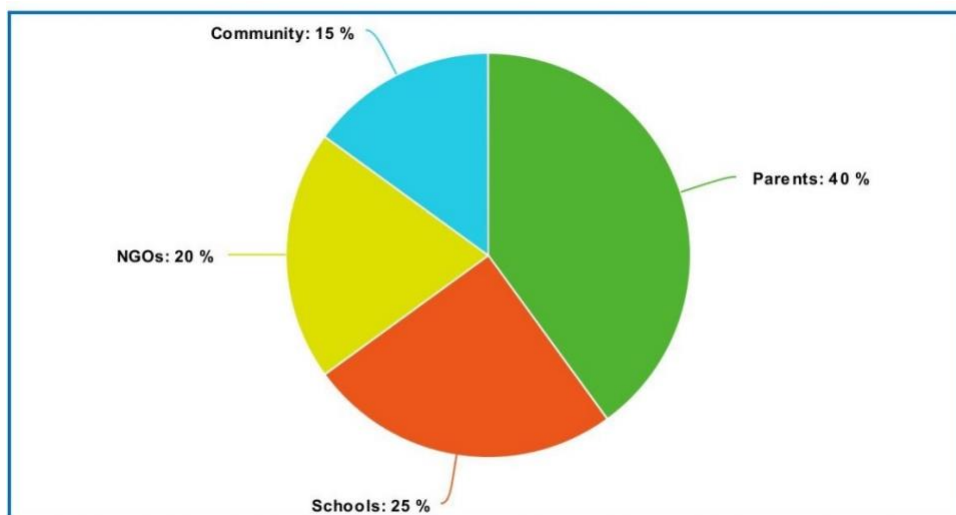
In the pie chart above “Vendors” included:

- A member of the Lango Language Board who teaches at a technical school
- The FICH representative for their youth enterprise program
- A newspaper vendor in Dokolo District

The “Public Events” included:

- The Pan-African Literacy for All Conference at Serene Hotel in Kampala
- The Lango Regional Spelling Bee in Lira
- The Lango Cultural Festival on Independence Day

Figure 9: Types of customers



In the above chart, we distinguish between “Parents,” who purchased our books primarily from teachers at school-related events, and “Community,” people who may or may not be parents but purchased our books in non-school related settings, primarily from our original vendors.

The NGO customer was one large order from [Food for the Hungry](#), a Christian relief organization with operations in more than 20 countries. They have established community schools in the region and

wanted to provide the schools with storybooks. Our literacy specialists also trained their staff to assist the community teachers in using the books in their classrooms.

Profitability

The table below analyses the total profit we could expect if we sold all 24,000 books.

Table 10: Profit if each book had been sold

No. of Titles	No. of Pages	No. of Books	Print Cost	Sales Rate	Profit Margin	Profit Total
2	20	2000	804	1,500	696	2,784,000
1	24	2000	900.6	1,500	599	1,198,800
2	28	2000	921.8	1,500	578	2,312,800
4	32	2000	1063.7	1,500	436	3,490,400
1	36	2000	1078	1,500	422	844,000
0	40	0	1127.1	1,500	373	-
1	44	2000	1338.8	1,500	161	322,400
0	48	0	1354.6	1,500	145	-
1	52	2000	1370.5	1,500	130	259,000
				Total Profit		11,211,400
				EXPENSES	Quality Check by MTEE	240,000
COST/PROFIT ANALYSIS					Transport to Lira	1,500,000
					Sales Manager Commission	2,400,000
					Theoretical Net Profit	7,071,400

Table 11: Average profit on each book sold

No. of Titles	Print Cost	Sales Rate	Commission	Profit
2	804	1,500	100	1,192
1	900.6	1,500	100	499
2	921.8	1,500	100	956
4	1063.7	1,500	100	1,345
1	1078	1,500	100	322
0	1127.1	1,500	100	-
1	1338.8	1,500	100	61
0	1354.6	1,500	100	-
1	1370.5	1,500	100	30
				4,406
Average Profit per Book				367

Table 12: Sustainability and sales manager costs (March-December 2019)

SALES MANAGER EXPENSES (May-December 2019)	
Expense	Total
Total Salary	6,930,000
Total Fuel	1,545,700
Total Commission	742,000
Total Cost for Manager	9,217,700

The sales manager's total expenses were UGX 9,217,700. The sales manager sold a total of 9,285 books, with an average profit per book of UGX 367, resulting in a total profit from his sales of UGX 3,407,595. In order to meet all of his expenses, he would have had to sell 25,116 books.

The data clearly indicates that we will need to increase our sales volume significantly to sustainably employ a sales manager for our books. Further discussion on the role of the sales manager in our pilot project can be found in the "Obstacles and strategies for overcoming them" section of this report.

Community involvement

Book Vendors

First, a brief outline of our original sales model: The retail sales price of UG 2,000/= (about US \$ 0.55) was printed on the inside cover of all the books. The vendor price for the books was UG 1,500 (\$0.41). Our plan was to identify one vendor per region (probably a district or, for more rural areas, multiple districts). This vendor would have the exclusive right to sell our books in that region. How they organized sales in their territory was up to them. They could sub-contract sales to others in the region and take a commission or they could do all the sales on their own. We wanted to see how they self-organized their business. For more information on how we established our vendor relationships.

The first challenge we encountered was that it was much harder to identify appropriate vendors in real life than it was on paper. We also had a product that wasn't understood by most individuals in what we'd term the "mobile retail trade," more commonly known as "hawkers." Throughout the region you can find individuals who specialize in selling used clothing, watches, jewellery and many other products as mobile traders. There are also mobile traders who specialize in food items like hardboiled eggs, bananas or pancakes. Although we put the word out in some of our initial radio programming, we were not getting calls from interested individuals.

Through some intense networking by our local staff, we eventually ended up with three vendors, two individuals and an organization (pseudonyms used for easy reference):

- Tom, a member of the Lango Language Board who teaches at a technical school (Territory: Lira District)
- Mary, FICH representative of its youth enterprise program (Territory: Kole and Oyam Districts)
- John, a newspaper vendor in Dokolo District (Territory: Dokolo and Amolatar Districts)

After a one-day training, vendors signed their contracts, purchased their first stock and began work.

Tom, the vendor in Lira town, had the most success. We reached out to him because we remembered him from our first attempt to sell local language books in 2012. Working with SIL over nearly two years, the Lango Language Board had come up with a revised orthography. As part of the validation process, a book needed to be written using the new orthography that many people would be exposed to. At SIL's suggestion we created an alphabet book that also had a large collection of proverbs, riddles and other well-known cultural sayings. The book was priced at 500/= and we sold it to Lango Language Board members at 250/=. We made an initial print run of 3,000 copies. They sold out very quickly and we then sold out another run of 6,000 copies.

Figure 10: Tom, the vendor



There were many “success stories” during that activity, but Tom’s was among our favourites. He started the day with a purchase of ten copies and kept coming back over and over during the day, using all of his profits to purchase more books. By the end of the day he had made a significant profit. Tom had the perfect profile to be a successful book vendor. He was a member of the Lango Language Board, so he was intrinsically motivated to support the local language. As an educator, he knew how to articulate the value of a product that was virtually unknown in

the marketplace. He is also a well-known and well-liked individual in the community and has the salesman’s gift of gab.

Tom used a variety of strategies. He put some of his stock in a friend’s stationery shop and trained another friend to sell books for him. Living in Lira, the most populated district in the Lango Sub-region, he was also able to identify a wide range of high-volume sales points: the taxi park, churches, markets, and private schools. Over three months he sold nearly 300 books. We contacted Tom recently and he continues to be interested in selling more books, but said that in order to expand his monthly sales he envisions having a motorcycle with a portable speaker to help him draw attention and audiences for the books. While Mango Tree cannot fund this expense, it would be an interesting experiment to see if these investments to improve his marketing strategy would provide enough addition revenue to support the extra costs.

Mary, the FICH staff member who ran the youth enterprise program, attended the training along with a Peace Corps Volunteer who worked part-time with FICH. The youth being targeted to sell the books were school dropouts; FICH was supporting them in developing income generating activities. They already had a project baking and selling high protein biscuits in their community.

In talking with the FICH director recently about his perspective on the lack of success they had in sustaining the book sales initiative, he attributed this to the lack of sales skills the youth had in communicating the value of the books to their customer base. In hindsight, it’s understandable that young school dropouts are probably not naturally suited to this task and would need a great deal of training to be successful.

Last year we initiated parent-education activities with FICH’s women’s groups. The director pointed out that these women would probably have had more success in book selling. When the national lock down due to the Covid-19 pandemic is over and “normal” life resumes, we hope to continue the parent education sessions and may consider including a component where women in the training can have the option to sell the books in their communities.

The final vendor we trained, John, was an existing newspaper vendor who worked in Dokolo town. He provides a cautionary tale for our experience with vendors. He leveraged his branded polo shirt and a fake letter from Mango Tree to promise unsuspecting customers that Mango Tree was hiring salespersons throughout the district (with excellent salaries and benefits). The only catch was that they had to pay John a “registration” fee (the fee ranged from 100 to 300 thousand shillings). We learned about this several months later when disgruntled relatives who had paid to get their unemployed young people a job showed up at our office. The forged letter was so clearly a fake that no one ever held us culpable for this scam. We have not followed up with John, so it isn’t clear whether he was ever arrested for his actions.

Vendors were given a durable backpack and a branded polo shirt when they made their first purchase. They also received pens, pencils, books (left over Leblango Alphabet books from a parent education activity in 2018) and t-shirts as incentive items.

The suggested incentive structure we came up with was as follows:

- two books = one pencil
- five books = one pen
- ten books = one free Leblango Alphabet Book
- 25 books = one free t-shirt

In feedback from the vendors, they told us that the incentives weren’t especially useful in encouraging sales, but were nevertheless a nice way to thank customers for their purchase. In future, we do not intend to invest any money in incentives.

A day of training was held in late March 2019, with a facilitator’s guide developed by the sales manager. It was a small, informal affair in our office. FICH sent five representatives (Mary, the Peace Corps volunteer, and three youth who were potential vendors). The other two vendors were also present.

We promoted book sales in a number of ways. The first week in April we held one-hour radio talk shows at three regional radio stations. A vendor, a teacher, a CCT and one of our staff participated in the program. The first half of the program was a panel discussion on the book-sales initiative and the importance of reading books outside the classroom. The second half of the program was a call-in format, with the guests answering questions from the listening audience.

By June, it was clear that if we only sold books through our vendor model, we would not be successful. We decided to revise our sales strategy and include the teachers in our Teacher Mentor Program to sell books, as well. We did not renew the 3-month contracts with the vendors.

Teachers

In June 2019, the teachers in our mentor program had completed one year (three terms) of training. These were teachers who went through an application and screening process to participate in this leadership program. Out of nearly 600 applications, we selected about 240 P1 and P2 teachers in 90 schools in seven districts. Already, these teachers had a high degree of motivation and commitment to early primary literacy in local language.

As part of our mentorship training program, teachers were expected to organize and implement a parent engagement activity each term. There was a general theme to each term’s assignment, but the teachers at each school had a great deal of flexibility and freedom in designing the final output. In July of term two, schools were expected to organize an “Education Week” that included open-house days for parents, displays of pupil work and an all-parent meeting where copies of our latest parent engagement tool, *The*


Parent Literacy Guide, would be distributed to all the parents. Teachers were given the guidebook in advance and were expected to arrange a guided instruction for parents to introduce the book.

With these plans already in place, we decided to add a book-sale component to the assignment. Each school was given 20 copies of each of the 12 books to sell to parents, among others, as well as the term two Pupil Book. Later, we agreed that from this total each school should be given one “free sample” copy of each book to be used for display and review purposes. Data from the reporting form for this activity provided us with insights on the parent stakeholder group.

Figure 11: Parent Literacy Guide (English translation), P1 literacy competency

The Big Benchmarks

? What reading and writing skills should I expect my child to demonstrate by the end of each school year in P1 to P3?



In P1 to P3 there are certain key reading and writing competences your child is expected to master by the end of the year. If they don't, they will fall behind and struggle to succeed. We call these key competences the **big benchmarks**. You can help your child reach these benchmarks by the end of the school year. The next page provides you with some simple tests you can do at home to see how well your child is progressing.


By the end of Primary 1...

I can read 30 letters in one minute.

O	ÿ	C	b	g	ē	l
W	m	ö	J	P	Ny	A
È	K	R	t	M	wg	ü
e	j	a	r	T	Ö	G
p	i	ŋ	d	ĩ	L	E

Reading

I can write my name with correct spelling and letter formation.



Writing

Teacher feedback after completing Education Week was overwhelmingly positive. Parents were excited about the *Parent Literacy Guide*. For the first time, “parental engagement” was defined as more than simply providing money for uniforms, exercise books and pencils. Instead, parents were addressed as partners in the literacy learning process. The guidebook provided a basic overview of the literacy competences being taught in early primary and gave parents hands-on activities they could do to support their children’s learning. One important activity: *reading storybooks together*. And another first, there were books available to purchase that were at their children’s reading and interest level.¹⁴

We originally planned to hand over the books to schools at CPD #7 in late June/early July and collect the unsold books at CPD #8 in early August. Instead, teachers requested that they keep the books and continue to sell them in term three. Eventually, a few schools returned their unsold books at CPD #9 and the rest returned them after the term three parental engagement activity, Academic Recognition Day. As a previous pie

chart (figure 9) indicates, teachers accounted for just over one third of our total sales.

At the district graduation ceremonies for teacher mentors in March 2020, we surveyed the newly graduated mentors about the activities they plan to implement this year. We gave them a list of options they could do on their own or in conjunction with MTLL. About 20% of the teachers indicated that they would like to continue selling our books this year.

¹⁴ Parental involvement is discussed in more detail below.

In preparing for this report, we called eight of these teachers to find out more about their motivations to continue selling books. Their motivations were similar and can be summarized as follows:

- Desire to address the lack of literature in local language.
- Want to promote the use of Leblango and the new orthography.
- “You can’t develop a reading culture without books to read!”
- Urgent need for reading materials in the home, especially for early primary pupils so children are exposed to text, and parents can support learning from home.
- The books also improve the parents’ literacy levels.
- Community interest in the books is high.
- Interestingly, not a single teacher mentioned a financial motivation and when asked about the 500/= profit on each book sold, the teachers were unanimous in saying that it was enough.

When asked to elaborate on the challenges they faced in selling the books last year, these were their responses:

- Parental illiteracy leads to undervaluing the importance of books.
- General lack of appreciation for the importance of early primary learning. Parents start to become concerned about their children’s performance only when the Primary Leaving Exam approaches.
- Expectation from other projects that learning materials should be given away for free.
- Poverty and lack of cash during certain times of the year. Parents are more likely to have cash on hand at the end of the two growing seasons when they are selling their harvests. These months are roughly August/September and November/December.

When we asked these teachers for any further comments or feedback that they wanted to share about book sales, these were some of their thoughts:

- Continue to add more titles for sale.
- There is also a need for more titles that will appeal to older children and adults.
- Mango Tree should not get discouraged. Selling books is a new thing; it will take time for parents to appreciate the value of the books. Just keep going slowly-slowly.
- Investing in parent education will help with the development of the book market.
- Head Teachers also need to understand the importance of investing in books and libraries for early primary classrooms.

Apart from the package of 240 books each school received, the *Parent Literacy Guide* was an important resource that helped teachers engage parents in meaningful discussion about their role in supporting children’s literacy learning, including buying books and reading together.

Coordinating Centre Tutors

MTLL has been actively partnering with the CCTs of Loro Primary Teachers’ College since 2010 and we have an excellent, mutually supportive relationship. CCTs experience many constraints in doing their work; MTLL provides them with both the learning tools and the financial support to undertake their fieldwork.

There has been a lack of institutional support for the Teacher Development and Management System (under which the CCTs operate) by the Ministry of Education for many years now. The result is that while we had teachers in 21 Coordinating Centres in seven districts, we worked with only 17 CCTs. Four CCTs in our program were “caretakers” for the Coordinating Centres that remained unfilled by government. In addition, another four CCTs in our group were retired but continued to work on a “voluntary” basis, receiving a small allowance from the college to continue providing services. In addition, some CCTs had motorcycles that were not functional. Other CCTs had health problems that limited their ability to participate effectively.

The impact of this lack of institutional support was that while we had a positive relationship with the CCTs and Loro PTC, we tried to develop programming that was not dependent on their support. One area where CCTs are particularly effective is as spokespeople and thought leaders. Because CCTs are generally older and well educated, parents and the general community respect and listen to their counsel. Therefore, we always included CCTs in our radio programming and tried to ensure that they attended as many parent engagement activities as possible.

A few CCTs not only promoted book sales, but they also became active vendors. CCTs overall sold about 500 books, but this was accomplished by 2-3 motivated CCTs. The Deputy Principal of Loro PTC also arranged for a CCT to sell books to pre-service students prior to their teaching practice.

MTLL provides a transport allowance to CCTs each term for program-related activities. They were also given a sample set of the 12 storybooks.

A MTLL Literacy Specialist met twice a term with CCTs for their Community of Practice meetings. During these discussions, the Literacy Specialists informed and updated CCTs on issues related to the book sales. CCTs were asked to share any meaningful information they acquired about the book sales in their termly reports.

The CCTs attended many of the parent engagement activities throughout the year including Education Week activities in term two when the books were being sold. They supported teachers in their efforts to educate parents on their role in supporting early literacy instruction at home and helping parents understand the value of investing in storybooks that children can read at home.

Parents

The parents' response to the book sales was generally positive. They enjoyed the variety of books and appreciated the guidance provided by the *Parent Literacy Guide*, which gave them suggestions on how to support their children's early literacy learning from home. Parents accounted for 40 percent of total sales in 2019. The three bestselling books were:

- Bible Story Collection
- Lango Fables
- Primary 1 Pupil Books

The content of the first two books was both familiar and considered valuable. Acquiring the textbook used by their child in class was both practical and useful. The least favourite books tended to have fewer words per page; the content was more frivolous, with no moral or cultural application to real life.

Although not directly related to the book project, term one parents who attended the Orientation Meeting were given a free *Leblango Alphabet Book*, which teachers used to give parents a better understanding of the revised orthography. In term two, parents who attended Education Week activities at their school were given the *Parent Literacy Guide*. Again, this book was not directly funded by the NBA Early Literacy Project but played a role in helping educate parents about the importance of supporting early literacy learning at home.

We also began working with women's groups organized by the FICH to develop a parent education curriculum using the *Parent Literacy Guide*. It was just beginning to get started when the Covid-19 lock down stopped our progress.







Children

We did not make a direct effort to get children’s feedback during the NBA Early Literacy Project. When the storybooks were being developed, however, Mango Tree Educational Enterprises did extensive pre-testing with children in the region on each of the books. The story content and illustrations were evaluated in focus group discussions with groups of children in different age groups. The writers and illustrators of the books attended these discussions.

Children were actively involved in Education Week activities. Teachers displayed stories and other class work. Another key message MTELL began promoting in 2019 as part of its Regional Assessment and Reporting Task Force was the *Big Benchmarks of Leblango Literacy* (figure 12). As part of their presentation about the *Parent Literacy Guide*, many teachers had pupils from P1 to P3 come up and demonstrate their competence in the reading and writing benchmarks for their grade level. This was one of the most remarked upon Education Week activities by the parents as they never expected pupils would be able to read and write at that level in early primary.

The storybooks also ended up playing a crucial role in the regional spelling bee that Mango Tree hosts each year in Lira. Pupils in P3 participate in a Leblango spelling bee, while P6 pupils compete in English. At the Leblango spelling bee, the contest was narrowed down to about 12 children, but they were all very good spellers (and spelling is actually not that difficult in languages with transparent orthographies – if you can pronounce the word, it’s fairly certain you can spell the word). In any case, the examiners ran out of words. Thinking quickly, they selected one of the storybooks that was on sale and had each of the 12 finalists read a portion of the book. They timed the contestants and the most fluent readers were awarded the prizes. We are considering developing upon this idea for future spelling bees.

Figure 12: *Big Benchmarks of Leblango Literacy*

The Big Benchmarks for Leblango Literacy																																																							
	Primary 1	Primary 2	Primary 3																																																				
READING	 <p>I can read 30 letters in one minute.</p> <table border="1"> <tr><td>A</td><td>N</td><td></td><td>D</td></tr> <tr><td>ö</td><td>ë</td><td>E</td><td>M</td></tr> <tr><td>g</td><td>L</td><td>p</td><td>ī</td></tr> <tr><td>ü</td><td>a</td><td>O</td><td>K</td></tr> <tr><td>W</td><td>I</td><td>Y</td><td>d</td></tr> <tr><td></td><td></td><td></td><td>m</td></tr> <tr><td></td><td></td><td></td><td>Ē</td></tr> <tr><td></td><td></td><td></td><td>P</td></tr> </table>	A	N		D	ö	ë	E	M	g	L	p	ī	ü	a	O	K	W	I	Y	d				m				Ē				P	 <p>I can read 30 words in one minute.</p> <table border="1"> <tr><td>atat</td><td>kac</td><td>dok</td><td>wic</td></tr> <tr><td>okönö</td><td></td><td></td><td></td></tr> <tr><td>aték</td><td>odero</td><td>bor</td><td>pacu</td></tr> <tr><td>gudu</td><td>apwony</td><td>gwok</td><td>lcina</td></tr> <tr><td>tic</td><td>anjyö</td><td>pyen</td><td>lëë</td></tr> </table>	atat	kac	dok	wic	okönö				aték	odero	bor	pacu	gudu	apwony	gwok	lcina	tic	anjyö	pyen	lëë	 <p>I can read a 60-word story in one minute.</p> <p>Tula gin Awele... om rik omarö myël twatwal. Anyira onwojo pe marö Tula. Gin onwojo okobo ni wii Tula dit te pëk. "Awele we, kõnya ba l wii me kõy awot kede i myël?" Tula okobo. Tula gin Awele te lökkö wii gĩ okö. Tula oruko wii Awele. Awele dag l me a Tula. Awele ocikö tula ni büny dwago piën njit wie cirë okö.</p>
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WRITING	<p>I can write my name with correct spelling and letter formation.</p> <p>Opio Tom</p> 	<p>I can write a 4-sentence story.</p> <p>Ojok tye anënnö gar. Ocak tye anënnö gar. Ocen oparö nënnö gar. Ocen anënnö gar ka owoto Kampala.</p> 	<p>I can write a 3-paragraph story.</p> <p>Ahu-... Ahu-... Ahu-... An amaro palaro gijö cal ofëë a fidi kide m a diti. Amari dag gijö cal awala nu kede cal jö i pira m. Diki maca ku adig amito kade ngücal. An amaro kizana nu a pira. An akada Amä atye kide yu l jirëë campa kade yu amaro a kide.</p> 																																																				

Findings, interpretation, and future plans

We have discussed the progress of this pilot with the teachers and CCTs who have been involved in the activities to get their feedback and suggestions. We have also shared our work plan with district officials and officers at NCDC and the MoES and provided them with sample copies of our books, but we have not yet shared our findings in a formal manner.

Below is a discussion on possible ways and innovations to enhance use of vendors, teachers, and radio. Potential price adjustments are also described.

Expanded use of teachers and other sales innovations

In the short-term, we still have a significant number of books to continue our experiment with distribution channels this year. As discussed above, we surveyed the graduating mentor teachers to see who is interested in continuing to sell books; about 40 teachers expressed interest.

Other mentor teachers are planning to work with us on developing a parent education curriculum using our *Parent Literacy Guide* as the textbook. We will certainly offer our books for sale to these parents and are considering how we might use these groups to sell our books as well.

Although initial planning did not envisage using teachers and schools to sell the books, we revised our thinking during the project's implementation. We are just beginning to explore how to maximize the potential of this relationship. When we decided to explore this possibility, one concept that we brought from the American market is the idea of using book sales as a means to build a school library and raise money for the school. This is an established and successful tradition in US schools, but it will need time and continued experimentation to see if a Ugandan model can emerge.

We hope that there will still be an opportunity to begin trials of different school sales models this year with our mentor teachers. We currently see three types of sales models we'd like to experiment with this year that aren't mutually exclusive:

1. Teachers do their own experimentation on how best to sell books in the community. We learn from them about what is successful.
2. We work with teacher vendors to organize a book sales event each term where one-two books are featured for sale in P1 and P2. Teachers feature these books in their non-literacy lessons and then encourage the children to solicit funds from parents so they can buy the book and take it home.
3. We work with teacher vendors to organize an annual book-sale event during one week of the academic year. We would try to time this event so that it aligns with the harvest cycle so that parents have some disposable income. Other literacy-related events would also be organized during this week.

The second project revision we made was to have vendors pay us **after** the sale of the books. This was necessary once we asked teachers to be vendors because they didn't have the upfront capital. Teachers now fill out an order form and are given the books on credit. They sell the books for 2000/= but pay us 1500/= for each book sold. Unsold books, if they are in good condition, can be returned at no charge.

This system does increase our workload, but so far, we've only had one experience where a teacher's own children got into the books and in reading them, made them inappropriate for return. The teacher agreed to pay for them.

In preparing this report, we also followed up with our one successful independent vendor. He volunteered that he would like to continue selling books, so once this lock down is over, we will also re-establish a working relationship with him and see what he is able to develop.

Expanded use of radio programming

We are also beginning to form a long-range plan for the next phase of our literacy work in the Lango region. One idea we've toyed with since the beginnings of our project is using radio as a medium of instruction. One of our key insights is that many of our customers do not have a way to gauge the value of a book. They understand the value of 2000/= (the cost of one of our books) in a traditional market, but it takes a great deal of savvy salesmanship to convince the average parent that they will obtain 2000/= worth of value from this collection of paper.

So how can we efficiently and effectively infuse value in our books? We now have a hypothesis to use radio programming to create dynamic cultural content that can be leveraged to increase demand for written text that replicates or elaborates upon the oral content. Here are just a few examples of radio programming we are considering right now:

Grandmother's Stories: This is an idea we've had since 2010. This is a short 5- to 10-minute program where a woman reads or tells a traditional story. The program is aired at the same time each week during an appropriate time in the early primary timetable so that teachers could opt to have their class listen. The most popular stories could be collected in a book. We could also provide teachers with lesson plans in non-literacy subjects that use the Grandmother Story as a lesson component.

Lango Language Show: This show would be the Leblango radio version of William Safire's *On Language* column in the New York Times Magazine. From about 2011-2015, we sponsored the Lango Language Board to produce a regular radio show using this same format and the show has been credited with boosting the overall popularity of one of the local radio stations. It was a one-hour show with the last 20 minutes featuring call-in questions. In our new version, our language specialist, James Odongo, would host this show; it would also provide a venue for him to sell the Leblango language resource books he's developed for our teacher training.

Storytelling and Story Writing Contests: This idea references successful American media programming like "American Idol" or other talent reality shows. The idea would be to hold an on-air storytelling contest. Each episode would feature 3-5 storytellers and listeners could use their cell phones to vote for their favourites. The most popular would continue and a best storyteller would emerge at the end of the series. The same could be done for written stories that are read aloud. In both cases, the best stories of the year could be compiled and sold.

Advice Programs: We also have ideas for different advice shows. Our literacy specialists could do a show that provides parents and teachers with advice on how to support children's literacy development. Our best advice (a revised version of existing *Parent Literacy Guide*) could be compiled and sold. We also imagine a format where elders could advise the youth. One idea is a women's advice show where respected women elders take written or phone-in questions on issues of gender, women's health and childrearing. Again, based on the content discussed, we could create a book for sale.

Documentary-style Programs: Most of the above programs are based on a "live" format, which is easy to produce because it doesn't require a lot of pre-production work. We would also like to produce programming that is scripted and pre-recorded. The first "documentary" on our list would feature our *Big Benchmarks of Leblango Literacy*. It would give the general community a better idea of the literacy milestones the average child should attain during the first three years of primary school. Ideally, this would be a four- or five-part series with additional programs on language/literacy benchmarks from age 0-3, age 3-5, benchmarks for Primary 4 (the English transition year in Uganda), for P5-P7, and perhaps even an episode devoted to creative writing in secondary schools.

Soap Opera/Telenovela Format: Another pre-recorded format to pursue would be local language radio soap operas. These could spawn books that expand on the characters and plots using the romance novel format.

While radio would be the primary medium for distributing the audio content, it should be easy to turn the recordings into podcasts available digitally. Podcasts can also be presented on YouTube. Sometimes one films the podcasts by putting a stationary camera in the studio, other times you just see the logo for the podcast but still access the audio content via YouTube.

Print costs and prices

We didn't have any major discoveries when it comes to cost-reductions. We have been creating and distributing books for many years now and have made most of our mistakes already.

One decision we made early on was to price all of our books the same even though the cost of production varied from 804/= to print a 20-page book to 1370.5/= to print a 52-page book. A difference of 566.5/=. We did this because we wanted to keep the transaction between the customer and the vendor, as well as the vendor and ourselves, as simple as possible.

Analysing book sales by popularity and comparing the number of pages does not provide us with any indication that the number of pages plays a role in the book's popularity. (See table below.) The average number of pages for the top six sellers and the average pages for the bottom seven sellers are both 32 pages. One strategy going forward might be to try to limit the number of pages more strictly to obtain a better profit margin on the books as a whole.

Table 13: Books ranked by number of sales and pages

Title in English	Level	No. Pages
1. I Can Read and Write – Pupil Book	NA	48
2. Bible Story Collection	2	32
3. Leblango Fables	2	20
4. Ugandan Fables	2	28
5. Visual Discrimination Workbook	1	36
6. I Can Do This!	1	28
7. Rhinos in the Forest	3	52
8. Handwriting Workbook	1	32
9. Rodger and Badger	2	32
10. Who Winnows the Millet	1	24
11. Wangari Maathai	2	20
12. Who Makes the Honey	1	32
13. The Best Speller	1	36

Success stories

Several teachers proved to be innovative salespeople. They identified unique sales strategies to amass impressive sales figures compared to their peers. Some of these strategies included:

- Selling books outside their school community, where parents had heard about, but did not have access to, Mango Tree programming
- Selling at local markets
- Selling at their place of worship on Sundays
- Using the admission period at the beginning of this school year to encourage parents to buy the P1 Pupil Book

These successful teachers were recognized for a skill set that teachers don't often have an opportunity to use, while at the same time making commissions that helped support their families financially.

The regional spelling bee was both a great venue for selling books, and also a dramatic opportunity to feature the reading fluency of P3 pupils when the judges depleted the list of spelling words and were forced to use the fluency at which the finalists read an excerpt from one of the books to find a winner.

Feedback from Teachers and Head Teachers at CPD feedback sessions to help us generate success stories included the following:

- Some schools were able to establish classroom libraries because of their book sales.
- Book sales helped parents get to know and appreciate the revised orthography.
- Some parents have set up reading centres in their homes.
- Some parents are now teaching their children at home using the books they purchased along with the suggestions from the *Parent Literacy Guide*.
- Parents have expressed appreciation for the content because it is supporting the restoration, promotion and improvement of the Leblango culture.

A Peace Corps Volunteer stationed at a Primary Teachers' College shared the following about our website and YouTube channel in an email:

I've showed the videos on Teaching Creative Writing on your YouTube channel to PTC students prior to their Supervised School Practice, highlighting several aspects that are well-demonstrated in the videos... I have purchased several of the small reading books in Leblango and am planning to have students design Big Books based on these during Term 2.

This PCV also told us that she had shared our website and YouTube channel with other volunteers in Uganda; several had thanked her and said they had downloaded information and videos.

In January 2020, we made a concerted effort to attend the beginning-of-year head teacher meetings in all seven districts. Our staff brought along our storybooks and the P1 Pupil Books for term one to sell. We sold over 2000 books as a result of these meetings and hope that head teachers will return for the term two and three textbooks once schools return to normal.

The sale of 2000 books to *Food for the Hungry* was a success story, not only because it was a significant sale, but it also gave us an opportunity to train their staff in appropriate early literacy instruction using supplemental readers.

The NBA Early Literacy Project provided a catalyst for working with two other local organizations. We've already mentioned FICH, the local NGO that is doing entrepreneurship and food security work in Oyam District. FICH was a book vendor, and we used its existing women's groups to begin piloting a parent education curriculum around our *Parent Literacy Guide*.

The book sales also brought us to the attention of the Lango Heritage Centre, which sold a few of our books from its offices. More importantly we are now working jointly to develop the radio programming idea. Our content will focus on education and literacy; they want to develop content on traditional agriculture and crafts. Both organizations share an underlying belief in harnessing local creativity and identity to address social and economic issues.

Obstacles and strategies to overcome them

Orthography

At the beginning of our project (2010-2013 primarily) we worked with the Lango Language Board and SIL to improve the Leblango orthography because it had a serious problem with under-representation of the sounds in the language. After a systematic process of review and community decision-making, the following revisions were made:

- Addition of four new vowel symbols (ë, ï, ö, ü) to differentiate between light and heavy vowel sounds.
- Doubling consonants to differentiate light and heavy consonant sounds, especially important in determining tense.
- Using the symbols “ŋ / ŋ” to represent the “ng” sound.
- The addition of forward and backward slash marks in front of verbs with grammatical tone to indicate the correct tense.

There were some other minor changes, but the four orthography issues above continue to require community education for understanding and acceptance. Our *Parent Literacy Guide* and the parent education curriculum we are developing is our current strategy to address the orthography education issue. Longer term, we want to explore developing content on radio as described above.

Local language policy implementation

After completing the orthography revision process, we supported the Lango Language Board to submit their revisions to the National Curriculum Development Centre (NCDC) for review and approval which happened in 2014. Despite this, NCDC continues to develop content for primary and secondary schools in Leblango using the old orthography. This points to a bigger systemic problem with the Government of Uganda’s inability to manage the complex linguistic challenges of a multilingual education policy.

We were in close contact with NCDC throughout 2019. We paid for the two local-language literacy specialists (primary and secondary) to visit our project in Lira in June. We shared our plans for the NBA Early Literacy Project and gave them samples of our books. We stayed in touch as our plans to print the P1 Pupil Book developed and Craig met with the Deputy Director of NCDC in Kampala to share this plan as well as update her on the book sales project.

This year we plan to do several things to help support NCDC at the national level and the Leblango Language Board at the regional level to better implement policy on local language instruction:

- We are sharing a list of the Teacher Mentor Program graduates with NCDC and the MoES. In the NCDC letter we will also indicate teachers we would recommend for any on-going content development in Leblango.
- Offer our expertise for revising the existing local-language documents and creating new text that NCDC needs to develop.
- When funding becomes available, we will handover all our content for official verification and approval by NCDC. We have already requested NCDC to provide us with an invoice so we have an idea of what to budget for the exercise, but have not heard back from them.
- We also want to use this time during lock down to meet with Lango Language Board just to catch up with the Board and better understand its organization structure and activities. The Board has not been active for several years; we want to understand what is behind its drop off in participation in language development regionally.

As table one on adult literacy rates indicates, approximately one-third of the adult population in the Lango Sub-region is illiterate. The gender disparity is significant, with less than half of adult women attaining literacy compared to 80 percent of men. This is important because mothers in general attend

parent activities at the school in significantly larger numbers and are more invested in supporting their children's learning at home. If, as our Theory of Change indicates, we aspire to, "a community of people with enthusiasm for and commitment to reading and writing in daily life," we have quite a way to go. Our experience is that parents have been very receptive to the *Parent Literacy Guide* and other program activities that provide opportunities to learn more about their language. At the same time, feedback from CCTs and teachers also indicates that non-literate parents are less likely to purchase books for their children. It is clear to us that MTL as an organization needs to address explicitly the issue of adult literacy going forward if we want to continue to develop the local language book market.

Attitude and content issues

Books in general, but especially children's storybooks, are not culturally familiar and are perceived as irrelevant or of little value to most people. We might have had more success if we were marketing books that were considered more relevant to people's lives or provided information that people thought useful or valuable. The P1 Pupil Book for the National Literacy Model was our bestseller for a reason: parents could understand the academic advantage it gave their child to own this book. We are constantly considering content that we might develop that could lead to a bestseller; as funds permit, we will develop those ideas. Our radio programming is another strategy we are considering to address the issues of attitude and value around books and literacy.

Sales manager and business skills

We advertised widely in the region for the position of Sales Manager for this project. Despite this, we had no truly qualified candidates to choose from. We eventually hired a recent graduate of a business school because he was the only candidate that we interviewed who could turn on a computer and open an Excel file. (The Excel task had more steps to it, but this was the furthest step any candidate could complete.) Unfortunately, the individual we hired didn't make up for his lack of technical skills with strong interpersonal or sales skills. With a skilled salesperson at the helm of this project, we might have seen better results. Finding capable candidates to fill key positions has always been a challenge. Mango Tree Kampala's strategy is to look for young people with potential and invest in significant training upfront. We didn't have the time to do this. As we continue our ad hoc book sales over the coming period, we'll keep our eyes open for someone who better suits the position. If we decide to seek further funding for these activities, we can budget for more training support during the start-up phase.

Online access to our books and educational resources

We were not successful in exploring the opportunities of online sharing of our books. As mentioned previously, the format for African Storybook content was quite different from our own. It could potentially be adapted, but would have required a budget for a designer to complete this task that we didn't have. In early 2020 we learned of the Global Book Alliance and Global Digital Library, but by that time we were focused on wrapping up activities and our Communications Intern, who was handling all the digital components of the project had returned to the United States.

When I review any of these international book platforms I wonder if our books have a place. We are committed to maintaining the lowest printing costs possible, so have not developed coloured versions of our books, apart from the digital versions created for War Child Uganda. I feel that our books, which when viewed from our outpost in northern Uganda, are full of exciting illustrations and engaging content, pale by comparison when placed on a digital shelf with all these full colour books with illustrations that can use a much broader creative palette.

MTL is also very focused on making an impact on rural Ugandan schools. It will be many years before the schools we work with will have access to the internet or have the capacity to meaningfully engage with

technology to download books and instructional materials that they can use in the classroom. For the weekly radio show we are currently producing we make frequent Facebook posts to provide parents with supportive visual information that will help them provide the follow-up instruction we describe on air, but the radio station director estimates that perhaps two percent of the listeners have access to this information. So, our motivation and our incentive to invest in digital content is limited.

Impact of the Covid-19 pandemic on follow-up activities

Another obstacle we encountered began on April 1st with the national lockdown due to the Covid-19 pandemic. We had many plans to continue experimenting with books sales in 2020, most especially using our recent Teacher Mentor graduates as vendors. Books sales has been put on hold; even if school does start again sometime later this year, the economic impact of the pandemic may affect our sales as priorities for non-essential spending diminish.

Figure 13: Teacher Jimmy reading radio script



The silver lining is that we have been able to begin implementing our radio programming ideas because of the crisis. We approached a local radio station, explained that we had no money to purchase broadcast time, but that we had the expertise to provide parents and children with supplemental educational programming. We humbly asked for 15 minutes once or twice a week; the radio station gave us one hour a week. We have been able to begin experimenting with radio education and are also selling selected books from the station. Sales are small, but we hope this will change once the lockdown is over and we can get back to utilizing a wider network of distribution.

Finally

We would like to thank Neil Butcher & Associates and The Hewlett Foundation for agreeing to fund this pilot project. In particular, we'd like to appreciate the support received from Kirsty von Gogh and Lisbeth Levey. Their visit to Lira last year was a special event for us. We learned so much from them; their excitement and enthusiasm for our work was extremely motivating. We don't get very many visitors in northern Uganda, so we appreciated the extra time and effort they took to meet with us in person.

We want to apologize for not having better data on online sales. We know that this was a key component of the project, but early on in the project we encountered some barriers to participation in existing online platforms for our books and made the decision to focus on our own website. We reached out to the communication specialist who researched the online platforms to get more information and to help us with accessing the analytics from our website, but did not receive a reply. To be honest, after some initial excitement about the potential for these digital platforms for our work, we have come to the conclusion that we still have many important challenges with access within our region and this is where we want to focus our efforts.

Finally, we just want to share with the readers of this report that while the data may not indicate that our work has been highly successful, in the process of working as a team to complete this report we have all realized how extremely useful this experiment has been and we are grateful for all we have learned this year. We are highly motivated to continue to explore the questions this work has raised and we are already forming new partnerships to take the work forward. Just this morning, we met with a local radio station to start a conversation about establishing a partnership to create compelling local content.

May 2020 marks the tenth anniversary of the regional stakeholders meeting where our *Theory of Change* was developed. Some of the ideas brought forward in that meeting were finally explored through the NBA Early Literacy Project. We are a patient organization that has a long-term perspective on development issues. We appreciate that the question at the heart of our work, "What does it take to have a literate society?" is one that we will never be fully answered; but measured against a decade of effort, we know we are making progress.

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