Centre for Educational Neuroscience

Literacy for Women in Africa
Yao Project Evaluation 2019-2020

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CONTENTS

LIST OF ABBREVIATIONS

CBLD – Community Based Literature Development

FiBS – Finnish Bible Society

INGO – International Non-Governmental Organisation

LWA – Literacy for Women in Africa Programme

NGO – Non-Governmental Organisation

SILI-AA – SIL International Africa Area

UBS – United Bible Societies

1. SUMMARY

This document presents an evaluation of the adult literacy project conducted and the materials developed for Yao speakers in the Mangochi district in 2019, based on materials and data collected and supplied by the Finnish Bible Society. Changes made to the materials in 2020 are also considered, although the project was unable to run that year on account of the Covid-19 pandemic. The project is supported by a grant from the Ministry of Foreign Affairs of the Finnish Government. The goal of the evaluation was to (1) compare the Yao literacy project to standards set out in the theoretical and behavioural literature concerning the education of adults, and (2) make recommendations as to how the Yao project could be improved to better meet those standards. The project was evaluated with respect to three themes: pedagogical approach, teaching and learning, and cultural considerations.

A brief history of the project is presented, noting that: in the setting up of the project 60 teachers were recruited, each participating in an intensive two-week training from literacy experts; in 2019, 31 classes from 30 villages were established with a total enrolment of 841 learners (97% women); of the 489 who started at Literacy Level 0, 347 subsequently passed (71%), while of the 31 who started at Level 1, 31 passed (100%); and there was a dropout rate between 27% and 38%.

The evaluation of Theme 1 considers course content, approach to instruction, and development of automaticity. Theme 2 considers teachers and teacher training, understanding learners, and learner dropout. Theme 3 considers post-literacy classes, gender, and additional languages. The overall evaluation concludes that the 2019 project was well attuned to the needs of learners and met criteria for best practice across multiple areas. It was relatively less strong in making the most of the metacognitive skills of their adult learners, and in showing awareness of who learners are and what happens to them after the project ends. Continuing to support learners as they move further along the literacy continuum after leaving the project, and collecting data to evidence that move, would help maximise and demonstrate the impact of this important work.

Briefly considering the 2020 Community Based Literature Development workshops, the report considers the use of levelling in newly developed reading materials, as well as the

importance of gender awareness.

The report concludes with a list of recommendations per theme, concerning future data collection, identification of areas best practice, and specification of areas of potential improvement. This is followed by recommendations for the evaluation of the 2021 project. Finally, in addition to the written report, we provide an interactive evaluation spreadsheet, designed to act as a checklist of the desirable properties of an adult literacy programme and to benchmark future improvements.

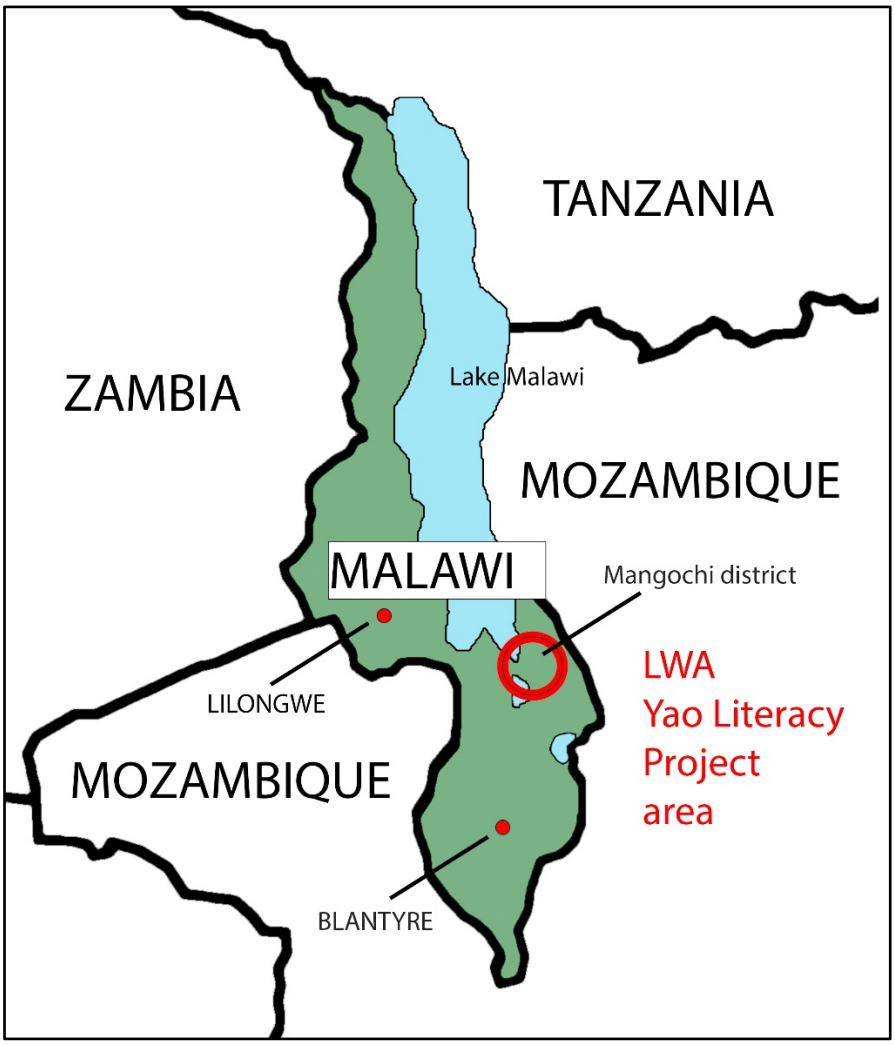

Figure 1. *The Yao Literacy Project area*

2. INTRODUCTION

The Centre for Educational Neuroscience (CEN) was commissioned to write this report by the Finnish Bible Society (FiBS) and the United Bible Societies (UBS) in order to evaluate their project for women's literacy advancement in southern Malawi. This first evaluation concerns the project conducted with Yao speakers in the Mangochi district in 2019. The evaluation is based upon materials and data collected and supplied by FiBS.

The purpose of the evaluation is to compare the Yao literacy project to standards set out in the theoretical and behavioural literature concerning the education of adults, and additionally to make recommendations as to how the Yao project could be improved to better meet those standards. The shared goal of FiBS, UBS and CEN is to support adults in their journey along the literacy continuum (see Figure 1[1]) as effectively, efficiently, and sensitively as possible. The evaluation considers the many inputs to literacy programmes which, in combination, maximise the effectiveness of programmes. All aspects of the Yao literacy project are considered in light of this overarching set of desirable features.

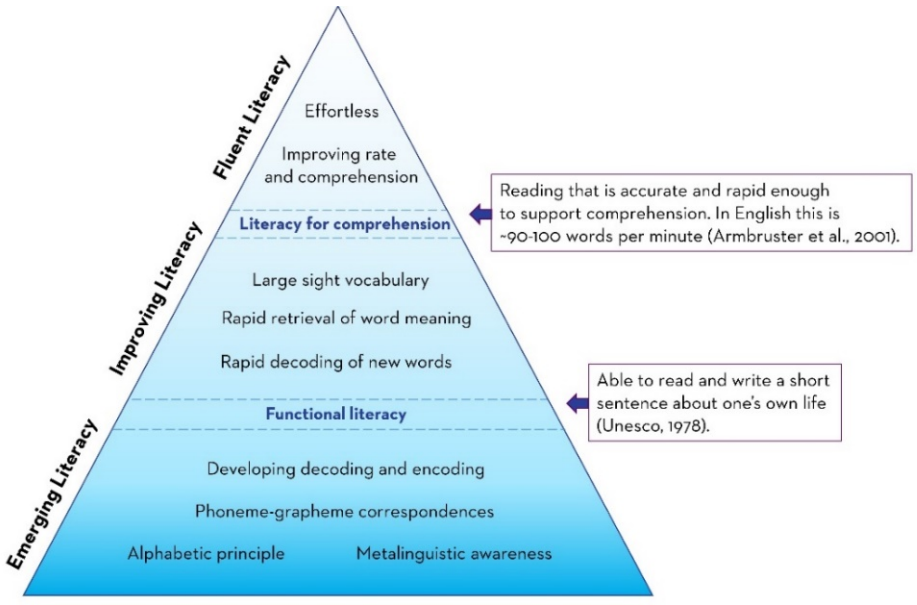

Figure 2. *The continuum of literacy development: Emerging, Improving, Fluent* ***literacy***

[1] Thomas, M.S.C., Knowland, V.C.P., & Rogers, C. (2019). *The Science of Adult Literacy*. Washington, DC: World Bank.

3. THE EVALUATED INTERVENTION

The evaluation relates to the 2019 literacy project carried out in the Mangochi district of Malawi for native Yao speakers (the local language of the Yao region), as well as subsequent changes made to the teaching materials in 2020. The target group was non-literate women of child-bearing age. The LWA programme's overall aim is 'to reduce illiteracy among women and promote lifelong learning opportunities.' More specifically, the goal for the evaluated 2019 project was that by 2020, 1,400 people (of whom, 80% women) would have learned to read.

Chichewa and English are the official languages for childhood education in Malawi, though there has been an unofficial move towards the integration of local languages where teachers feel it necessary for explaining difficult concepts[2]. Yao is spoken by around two million individuals in Malawi (about 10% of the population). As a written language, Yao uses a Latin alphabet, and a key feature is that it has a shallow written form (orthography), that is, there are predictable, consistent mappings between the spoken sounds of language (phonemes) and the written letters (graphemes). Despite recent improvements in access to childhood education in Malawi[3], the literacy rate in Yao is just 60%. Based on the demographic picture in Malawi (overall literacy rates are 73% for men and 59% for women), we can assume that the literacy rate for women in Yao is considerably lower than this overall value. Yao women are doubly marginalised; first on account of their gender and second on account of their mother tongue, since many minority language speakers have no access to mother tongue literacy training.

The background history which underlies the organisation of FiBS/UBS literacy programme is fully described in the FiBS 2019 and 2020 Annual Reports and the 2015-2019 and 2019-2020 Project documents – and so will not be repeated in its entirety here. Some of the salient points regarding the origins and ongoing management of projects are as follows:

[2] Al Mtenje. (2013). Developing a language policy in an African country: Lessons from the Malawi experience. In H. McIlwraith (ed) *Multilingual Education in Africa: Lessons from the Juba Language-inEducation Conference*. British Council, London.

[3] https://www.unicef.org/malawi/school-age-children

- LWA Program started following the launch of the UBS Global Literacy Strategy in 2014 which identified women's literacy in Yao-speaking regions as an area of particular need
- The Finnish Bible Society has played, and continues to – play, a major role in developing literacy programmes in the region since 2009.
- Through joint planning with SIL-AA, a single literacy project for Yao in 2015 evolved into an ongoing series of projects in Yao, Lhomwe and, potentially, Sena languages, with the goal of graduating 5,400 learners from no/very low to basic literacy by the end of 2022
- Yao orthography has been officially approved by the government of Malawi, but specific learning materials had to be developed for these projects
- Stakeholders at the community level include local authorities, traditional leaders, churches, NGOs and INGOs working in the region
- Projects are operating in areas, and with demographic groups, who face high rates of non-literacy, gender inequality and poverty
- Projects are founded on the belief that basic literacy skills are essential for many everyday tasks, even more so since digital developments have made mobile phones nearly ubiquitous

The first step in implementing literacy programmes was the appointment of a Yao Literacy Supervisor and Coordinator, followed by community mobilisation targeting rural communities and chiefs. As a result, 60 teachers were recruited from 30 villages. The teachers participated in an intensive two-week training from literacy experts, focused on how to teach Yao literacy. On the learner side, 31 classes from 30 villages were established with a total enrolment of 841 learners (815 women, 26 men) in 2019.

Literacy classes were designed to take learners, over several months, from the basics of phonology and orthography through to reading, using familiar cultural themes. Materials were developed with consideration of gender, cultural and religious sensitivities. Further reading materials were developed, based on topics chosen by learners and communities themselves. Post-literacy activities were conducted in 31 literacy centres for 361 learners.

The current evaluation is based on the assessment of documents provided by FiBS and discussions with some of those involved in LWA programme including Ari Vitikainen (Literacy specialist for FiBS), Patrick Gondwe (National Literacy coordinator for BSM) and Wilfred Ngalawa (BSM Programme Manager). The documents that have formed the basis for the evaluations are the 2019 and 2020 annual reports, the 2019/2020 project document, the 2019/2020 Results Based Framework for 2019, the Project Report 2015-2019, the Malawi Travel Report by MFA 2019, Baseline Endline assessment documents, the Yao teacher guide (in English), the materials relating to the 2020 Community Based Literature Development (CBLD) workshops, various teaching materials (primers, alphabet posters, supplementary reading materials) and photographs and videos of classes.

4. FINDINGS AND EVALUATIVE CONCLUSIONS

We approach the evaluation by theme. The primary themes considered are:

- The pedagogical approach taken, including the teaching materials developed for the project.
- Understanding learners and teachers, including teacher training
- The cultural context of the project and the extent to which the project can be considered sustainable.

For each of these themes we consider how the project compares with the evidence available for best practice at the level of *the brain*, *the person*, and *the wider cultural environment*. We highlight areas of excellent practice likely to be contributing to the current success of programmes and consider specific areas that, if improved, might lead to still greater effectiveness. We also consider the evidence base itself and propose the additional data that are needed if programmes are to be fully and rigorously assessed. We make specific suggestions about the data we would ideally like to see collected to allow ongoing monitoring of programmes. Data collection, identification of areas best practice, and specification of areas of potential improvement form the basis of our recommendations for change moving forward.

An interactive evaluation spreadsheet accompanies the written prose report, which is designed to act as a checklist of the desirable properties of an adult literacy programme. It spells out, one by one, all elements of programmes which might contribute to their success - at all levels, i.e., from aspects related to how the adult brain learns, through to understanding the needs of learners and teachers, through to cultural factors which might have an impact. The spreadsheet is annotated with regard to the current evaluation of the Yao 2019 project, in a traffic light system where green highlights those elements which are currently being well executed, amber marks those which are being partially executed and red shows areas which might be considered as possible additions or adaptations in future programmes. Recommendations have been made for the specific implementation of any such changes. We hope that this checklist will also serve as a useful component of the second evaluation which

will take place in 2022, as well as a tool by which future evaluations can be benchmarked and ongoing progress monitored.

Theme 1: Pedagogical approach

We use the term *pedagogical approach* to refer to the way in which teachers interact with learning materials and the learners themselves. In general, the team was very impressed by the pedagogical approach set out in the course materials. We would like to highlight the inclusion of phonemic awareness, the focus on comprehension and gradual transition from familiar and concrete to unfamiliar and abstract, as being particularly well aligned with established best practice in adult education. In this section we ask whether *the content of the course is appropriate and sufficient to allow learners to make their first steps along the literacy continuum; whether the approach to instruction provides learners with the best chance of engaging with and learning the material presented; and whether the programme allows for learners to move toward fluent literacy.*

Course content

The Yao literacy project makes a clear and determined effort to ensure learners are supported on their journey along the literacy continuum; we have been very impressed by the careful thought evidently put into project development. In our evaluation, we make the assumption that the majority of learners have had no or very little formal education, but that most will encounter written forms on a regular basis through mobile phones, street signs and household literature such as leaflets. We refer to these adult learners as 'non-literate'.

Non-literate adults joining the project need to establish two key foundational skills for literacy: a) metalinguistic awareness and b) the alphabetic principle. Metalinguistic awareness is the conscious awareness of the structure of language. The levels of metalinguistic awareness that underpin literacy development are collectively called phonological awareness, which covers: the phonemic, the syllabic and the morphological, where learners develop awareness that spoken language can be broken down into its smallest units (phonemes), its smallest meaningful units (morphemes), and its rhythmic units (syllables).

Metalinguistic awareness is demonstrated by the ability to pick out these units in speech and to manipulate or play with them. Phoneme level awareness are particularly lacking in non-literate adults[4] and is strongly linked to letter knowledge in adults learning to read[5]. It is also a robust predictor of reading success for adults engaged in basic literacy programmes[6] and in those with no prior reading experience[7] in western literate societies.

According to the Teacher's Guide, each session in the Yao literacy project includes 'phonetic awareness' (akin to phonemic awareness) in which learners identify new sounds in a keyword, which is introduced in a story context. The keyword is broken down into syllables, and learners identify the syllable that contains that day's phoneme (which is later related to a grapheme). Learners are asked to identify whether each word in a list contains the new phoneme and are challenged to produce their own examples of words containing that phoneme. This phonemic training is a key element of each lesson and its inclusion is an important strength of the project.

The phoneme monitoring task adopted in the course is, however, quite a difficult one for non- and neo-literates, and the course directors may wish to think about additional activities to shore up learners' metalinguistic skills. For example, on a course with non-literate adults in Germany a 'phoneme association' task was found to be a better predictor of endpoint literacy than even years of schooling[7]. In this task, learners are presented with words that have artificial pauses inserted and have to recognise the word as a whole. For example, the Yao word "mata" would be presented as "m" (pause for a second) "ata". This task requires the blending of a phoneme onto the start of a word, a skill which is important for both reading

[4] Adrián, J.A., Alegria, J., & Morais, J. (1995). Metaphonological abilities of spanish illiterate adults. *International Journal of Psychology, 30* (3): 329-353.

[5] de Santos Loureiro, C., Willadino Braga, L., do Nascimento Souza, L., Nunes Filho, G., Queiroz, E., & Dellatolas, G. (2004). Degree of illiteracy and phonological and metaphonological skills in unschooled adults. Brain & Language, 89 (3): 499-502.

[6] Tighe, E. L., Little, C. W., Arrastia-Chisholm, M. C., Schatschneider, C., Diehm, E., Quinn, J. M., & Edwards, A. A. (2018). Assessing the direct and indirect effects of metalinguistic awareness to the reading comprehension skills of struggling adult readers. *Reading and Writing*.

[7] Landgraf, S., Beyer, R., Hilda, I., Schneider, N., Horn, E., Schaadt, G., Foth, M., Pannekamp, A., & van der Meer, E. (2012). Impact of phonological processing skills on written language acquisition in illiterate adults. *Developmental Cognitive Neuroscience 2S*: S129–S138

and spelling.

As phonemic awareness is only one part of metalinguistic awareness, other activities could be integrated. Phoneme level awareness is a key foundation for literacy in children, but it only emerges after children have become proficient at word level and syllable level awareness. While non-literate adults are thought to be relatively proficient at phonological awareness at the level of the whole word and the syllable[8], ensuring this foundation is strong for adult learners would support subsequent phoneme level awareness tasks. We therefore suggest the team could also build in some more basic phonological awareness activities at the beginning of the project, such as breaking down sentences into words or two syllable compound words into their component syllables. The clapping syllables activity that learners already engage in is an excellent example of a basic phonological awareness activity. Such activities will help to ensure that all learners start on an equal footing.

The second key foundation for literacy is understanding the alphabetic principle. This is the idea that the sounds of a language can be represented by an arbitrary visual code. It should be introduced to learners at the start of a literacy project. Again, this is something that non-literate adults are thought to be proficient at compared to children at a similar stage of reading tuition. However, as establishing the alphabetic principle is a precondition of understanding the orthographic code: the associations between specific phonemes and graphemes in a given language, this is important to explicitly explain. Other essential knowledge that should not be assumed includes the fact that writing is *directional*, moving from the left to the right of the page.

Building learners' understanding of the orthographic code is another key element of the Yao literacy project. The project follows a strongly phonetic approach, which is highly appropriate as it is supported over a whole word reading approach[9] in general, and is certainly most suitable here as the Yao script is shallow, with a regular relationship between graphemes and phonemes. Phoneme-grapheme correspondences are presented in order of frequency in the

[8] Kurvers, J., & Vallen, T. (2006). Discovering features of language: metalinguistic awareness of adult illiterates. Low-educated second language and literacy acquisition, 69-88.

[9] Castles, A., Rastle, K., & Nation, K. (2018). Ending the reading wars: reading acquisition from novice to expert. *Psychological Science in the Public Interest, 19* (1):5-51.

written language. There are other ways to order the introduction of correspondences[10], such as teaching phonemes that are more perceptually salient first as they stand out in spoken words and so are thought to be easier to identify and manipulate; teaching graphemes that are similar in upper and lower case early on; and in less transparent orthographies teaching those phoneme-grapheme associations that are more consistent first (see Kolinsky et al., 2020[11]). The choice of approach taken in Yao is practical and allows readers to build-up the ability to access more complex texts quickly.

Another possibly productive route would be to teach learners both the sound and name of the letter in each session. Letter knowledge is a strong predictor of the development of reading skills in children[12],[13] (along with phonological awareness and letter sound knowledge). Notably though the vast majority of work on letter name knowledge has been done with children, and specifically children from countries with deep orthographies such as the UK. Letter name knowledge is thought to support children to understand the alphabetic principle and support them in establishing early phonological knowledge of the sounds that letters make. To our knowledge there is no work considering the role that letter name knowledge might play in adult literacy instruction, or indeed whether letter name knowledge is a good predictor of reading progress in learners of shallow orthographies. This might be an area that the team could consider experimentally in the future; such work would provide invaluable data for future adult literacy programmes.

[10] Kolinsky, R., Leite, I., Carvalho, C. *et al.* Completely illiterate adults can learn to decode in 3 months. *Read Writ* 31, 649–677 (2018).

[11] Kolinsky, R., Carvalho, C., Leite, I., Franco, A., & Morais, J. (2020). In *The Wiley Handbook of Adult Literacy*, Perin, D (Ed). Wiley-Blackwell, UK

[12] Foulin, J.N. (2005). Why is letter-name knowledge such a good predictor of learning to read? Reading & Writing, 18:129-155

[13] Schatschneider, C., Fletcher, J. M., Francis, D. J., Carlson, C. D., & Foorman, B. R. (2004). Kindergarten Prediction of Reading Skills: A Longitudinal Comparative Analysis. *Journal of Educational Psychology, 96*(2), 265–282.

Recommendations:

1) Build in more, and more varied metalinguistic awareness activities at the levels of the phoneme, as well as the syllable.

2) Explicitly introduce the alphabetic principle when learners first start the project, along with the notion of directionality in writing.

Approach to instruction

Schedule for engaging with new material

Learners typically need to engage with new information multiple times to optimise learning. Two important elements of that learning process are how material is engaged with and when it is engaged with. The how should be as active as possible; and the when should be spaced out. Active engagement, or 'active recall' means that learners are encouraged to recall information themselves rather than being given it, since the act of recall itself supports new learning[14], and is a powerful technique for remembering new information. In terms of when, repeated engagement with materials should be spaced out over time. This is known as, 'spaced learning' and is preferable to multiple presentations in rapid succession[15]. The benefit of spacing is seen both within a single session and when presentations are spread over many sessions. Intervals between presentations which are long and variable result in optimal long-term retention[16]. In a recent paper[17] exploring the most appropriate schedule for adults learning new words, an 'extended schedule' was found to be optimal, with intervals between

[14] Karpicke, J.D., & Grimaldi, P.J. (2012). Retrieval-based learning: a perspective for enhancing meaningful learning. Educational Psychology Review, 24: 401–418. 2

[15] Cepeda, N.J., Pashler, H., Vul, E., Wixted, J.T., & Rohrer, D. (2006). Distributed practice in verbal recall tasks: a review and quantitative synthesis. Psychological Bulletin, 132 (3): 354-380.

[16] Smolen, P., Zhang, Y., & Byrne, J.H. (2016). The right time to learn: mechanisms and optimization of spaced learning. *Nature Reviews Neuroscience, 17*: 77-88.

[17] Yan, V.X., Eglington, L.G., & Garcia, M.A. (2020). Learning better, learning more: the benefits of expanded retrieval practice. *Journal of Applied Research in Memory and Cognition, 9* (2): 204-214.

presentations of material getting longer with repeated presentations.

The way that the Yao project promotes these elements of pedagogy is already impressive. In class, students are encouraged to actively participate, thinking of their own examples, and reading a text themselves rather than having it read to them. In each lesson, material from the previous two lessons is reviewed, and every fifth lesson is a revision lesson. We suggest that in order to approximate an expanded retrieval schedule, as well as every fifth lesson being a practice session, one session a month should be dedicated to rounding up everything covered on the course so far, and this should be done again at the end. These additional revision sessions should involve active recall rather than having materials presented to the students.

Developing visual expertise

When learners on the Yao project are introduced to new elements of the alphabetic code, they are encouraged to compare those new letters with similar letters they already know. This is excellent practice and emphasises the key distinguishing features between similar letters, drawing learners' attention to them. Emphasising key features in this way will be particularly important in the case of letters that mirror each other, such as lower case 'b' vs 'd' and 'm' vs 'w' and 'u' vs 'n'. Mirrored graphemes are problematic for new readers because the visual system is familiar with ignoring exactly that kind of difference between two visual objects, as in the case of recognising a cup from both sides even though the handle (like the loop of the 'b') goes in opposite directions. Overcoming this mirror invariance is something that new readers struggle with in childhood, and is particularly challenging for neo-literate adults[18], though with practice adults are able to break mirror invariance[19].

The Teacher's Guide talks about the development of handwriting practice for each grapheme introduced, with teachers demonstrating how to form each new letter, then learners tracing

[18] Kolinsky, R., Verhaeghe, A., Fernandes, T., Mengarda, E. J., Grimm-Cabral, L., & Morais, J. (2011). Enantiomorphy through the looking glass: Literacy effects on mirror-image discrimination. *Journal of Experimental Psychology: General, 140*(2), 210–238. https://doi.org/10.1037/a0022168

[19] Pegado, F., Nakamura, K., Braga, L. W., Ventura, P., Filho, G. N., Pallier, C., Jobert, A., Morais, J., Cohen, L., Kolinsky, R., & Dehaene, S. (2013, June 17). Literacy Breaks Mirror Invariance for Visual Stimuli: A Behavioral Study With Adult Illiterates. Journal of Experimental Psychology: General. Advance online publication. doi: 10.1037/a0033198

and writing out that form both on the board and in the air. Engaging the motor system in this way as students learn grapheme-phoneme correspondences will also support the development of their visual perception and recognition of new letter shapes. Adding in plenty of variability here would further support learners to use and recognise new letters. Learners can be supported by seeing examples from different fonts, different handwriting, and different sizes. The team already do this by introducing both upper and lower case forms to learners. Building in variability will support learners to extract the letter identity rather than just see the letter form. If learners always see the same shape of 'A' written in literacy booklets, then they may not realise that a letter printed in a text or on a road sign is the same letter if it's not exactly the same form. However, if learners are taught that this is **A**, but so is **a** and 𝔸 and 𝜶 and 𝘼, then they can learn the key perceptual features that are important for that letter in any context. In general, building in diversity to promote flexibility will mean that learners can generalise their skills more easily. This should be a guiding principle wherever possible.

The role of metacognition

Metacognition refers to the ability to reflect on one's own cognitive abilities – to think about one's own thinking. An example of metacognition might be knowing that you struggle to remember people's names when you first meet them. Knowing that fact about your own thinking might allow you to develop a strategy to help you remember names better, such as immediately using the person's name in conversation. This kind of thinking is something which adults excel at compared to children. Metacognition allows adult learners to plan, monitor and evaluate their learning. Importantly though, the extent to which adults demonstrate metacognitive abilities is related to years spent in education[20]. As such, many of the learners of Yao are likely to need support to make the most of this skill as they will likely arrive as 'tacit' learners, unaware of strategies they may already be using and not used to monitoring or evaluating progress.

[20] Gómez-Pérez, E., & Ostrosky-Solís, F. (2006). Attention and memory evaluation across the life span: heterogeneous effects of age and education. *Journal of Clinical and Experimental Neuropsychology, 28* (4): 477-494.

Any explicit *strategy* that is used when performing a task can be considered metacognitive as it allows learners to reflect on how to perform a task better and how the use of that strategy supports task performance. One example of an explicit strategy relevant to the Yao programme is the explicit teaching of the structure of morphology. Bantu languages are rich in the use of prefixes and suffixes denoting grammatical and semantic features. An introduction to the regularity of rules dictating the use of morphological components would be an example of using adult strengths to support learning, as it would allow learners to apply a rule to both reading and spelling, and to reflect on how that rule has made the task easier. This could be achieved through the use of rhyming words that share spelling patterns, linking back to phonological awareness exercises.

Another way to build more metacognition into the programme would be to encourage learners to set their own personal goals at the start of the course - and to ask them to reflect on their own progress in relation to those goals at the mid and end points. This could be a class wide exercise, or it could be done in groups or pairs.

Recommendations:

1) Include a monthly revision session where learners actively recall the grapheme-phoneme correspondences they have been learning, along with key metalinguistic awareness knowledge.

2) Make sure learners have experience with different examples of the same grapheme so they can learn the core features and not simply the one form they have been taught.

3) Build in variability wherever possible to promote flexible learning and support generalisation to other contexts.

4) Support learners by helping them develop strategies to guide their own learning.

5) Encourage learners to set their own goals at the start of the project.

The development of automaticity

Time required to reach fluency

Fluent reading relies on the reader being able to automatically recognise whole words rapidly and effortlessly, access their meanings from the lexicon and integrate that meaning into the sentence being read. When reading aloud, fluent reading also requires that readers inject appropriate prosody and intonation: stress, rhythm, and tone of voice. Being able to read fluently is the foundation for reading for meaning, as having to decode individual words takes considerable cognitive effort and puts strain on short-term memory, especially for longer sentences. Fluent reading is also much more enjoyable, and individuals who attain fluency are more likely to keep using their literacy skills. This is an important consideration given that a UNESCO report in 1976 estimated that even among those adults who completed literacy courses and passed them, 50% subsequently dropped back into non-literacy[21]. Notably, as far as we are aware, there are no more recent data on this issue, so this figure can only be taken as a rough estimate.

Learners need to attain around 90-100 words per minute[22] to be considered fluent. Based on the schedule of lessons three times a week for two hours over about seven months, learners in the Yao literacy project are engaging in around 168 hours of literacy instruction. While impressive, this falls far short of the amount of time a child spends in literacy instruction over the course of primary school, by which time they attain reasonable fluency. Just an hour of literacy instruction per day over the primary years would amount to around 875 hours, and in reality, children spend more than an hour a day with written texts. Certainly, for adults to improve beyond the level of functional literacy, they would need to put in considerable practise outside of class and after the end of the project. Understanding this should be part of learners' expectations and goal setting at the start of the project. Completing a literacy course is a hugely positive step, but it is only the start of a learning journey for neo-literate adults and should be viewed as a jumping off point as much as an end in itself.

[21] UNESCO/UNDP. 1976. The Experimental World Literacy Programme: A Critical Assessment. Paris: UNESCO.

[22] Armbruster, B.B., Lehr, F., & Osborn, J. (2001). *Put reading first: The research building blocks for teaching children to read*. Jessup, MD: National Institute for Literacy.

The Teacher's Guide explicitly talks about automaticity underlying fluency, which is great to see; there is also a clear focus on comprehension throughout the project. With Yao being a shallow orthography, with low visual complexity, learners have a really good shot at fluency, given sufficient support.

During the project

The focus on comprehension during the Yao project will support learners as they move towards fluent reading. The Teacher's Guide sets out the approach to text comprehension in a very sensible and supportive way. During comprehension exercises in class, teachers are asked to include questions that rely on both observation and prediction or imagination. As these questions are set by the teachers themselves, they can pitch them at a suitable level for the specific class. The Guide also emphasises that the learners need to read the information themselves rather than having it read to them. When learners get stuck, teachers are encouraged to show them the place in the text where the answer can be found. This is a great way of scaffolding learning so that learners can feel a sense of achievement while still being supported. Reading out longer sections of text and answering questions provides an opportunity for teachers to provide supportive, specific, and qualitative feedback. Feedback should, as much as possible, include a supportive comment and a specific area for the learner to work on in the future.

Research with non-literate or semi-literate adults in Burkina Faso found that speed reading words on cards in pairs with a stopwatch and charting progress (along with phonemic awareness training) resulted in the best outcomes for letter recognition, syllable identification, word identification and sentence comprehension[23]. A similar strategy, encouraging rapid reading for a short period of time, could be built in towards the end of the Yao project.

After the project

After learners complete the Yao project, many are known to engage in further literacy

[23] Royer, J.M., Abadzi, H., & Kinda, J. (2004). The impact of phonological awareness and rapid-reading training on the reading skills of adolescent and adult neoliterates. *International Review of Education, 50*(1): 53–71, 2004.

activities. The Annual Development Cooperation Report 2019 states that 'Post-literacy activities were conducted in 31 literacy centres for 361 learners. Learners were meeting for at least one day a week, many groups more often, reading story books and writing.' This theme of learning after the project is again picked up under 'Lessons learned'. This is clearly an area where the Yao literacy team is working hard to make changes. Through CBLD workshops held in 2020, the team have developed stories with simpler plots, more pictures and bigger fonts. A key element of these texts is the fact that they are levelled to accommodate different degrees of learner fluency, such that they align well with the idea of the literacy continuum. This approach is an excellent way to make sure that learners engage with material that challenges them without being overwhelming and accords with very well established pedagogical principles of learning progressing most rapidly when learners work at the edge of their ability. See below for further consideration of the CBLD workshops.

Recommendations:

1) Discuss goals and expectations around fluency at the start of the project.

2) Formalise support structures for women to engage in practice after the project.

3) Consider the integration of speed-reading pair work towards the end of the project.

Theme 2: Teachers and learners

In this section, we consider the following questions regarding teachers and learners. *Do teachers have sufficient expertise in adult literacy teaching and language specifics? Are they appropriately remunerated? Do systems exist for monitoring, mentoring, and improving teaching quality?*

On the learner side, are the motivations of learners well understood and documented, with goals articulated and pursued? What efforts are made to maximise motivation and resilience and tackle frustration and potential drop out?

Teachers and teacher training

Teaching quality is an extremely important factor in determining the success of literacy programmes[24,25]. Properly trained and remunerated teachers, with good understanding both of literacy and of the specifics of teaching adults, can fully engage learners and maximise learning effectiveness[26].

There are many aspects of the Yao project which are in line with best practice regarding teacher training. First and very important is the fact that teachers themselves are native Yao speakers, enabling matching of the language of instruction to the language being taught, an important feature not always present in literacy courses[27]. Teachers are individually selected by chiefs and community leaders to undergo the teacher training programme, a feature which works to promote community engagement more widely (e.g., in convincing potential learners also to take part in classes and to make classes feel driven by, rather than imposed upon, the community), as well as helping to ensure the relevance and cultural sensitivity of both

[24] National Research Council. (2012). Read 'Improving Adult Literacy Instruction: Developing Reading and Writing' at NAP.edu. https://doi.org/10.17226/13468

[25] Medel-Añonuevo, C. (2013). 2nd Global Report on Adult Learning and Education: Rethinking Literacy. UNESCO Institute for Lifelong Learning. Retrieved from https://eric.ed.gov/?id=ED560502

[26] Benseman, J., Sutton, A., & Lander, J. (2005). Working in the light of evidence, as well as commitment. A literature review of the best available evidence about effective adult literacy, numeracy and language teaching. Retrieved from https://unitec.researchbank.ac.nz/handle/10652/2051

[27] Tuckett, A., & Popović, K. (2015). Plus ça change, plus c'est la même chose: Adult literacy since 2000—a civil society perspective. Andragoške Studije, 1(2015), 25–40.

materials and approach. In addition, during training, there are open discussions with trainee teachers about topics such as how to engage with village chiefs, the importance of agreeing class scheduling with learners, how to handle issues such as having more learners than the class can readily handle - that is, issues relevant to the specific cultural environment from which learners come. Even more broadly, discussions touch on the theoretical background to courses: the importance of literacy in the community, the rationale behind the focus on women learners and the reasons for teaching literacy in mother tongues. All these factors help to empower teachers for their new role. This is particularly important since many teachers are very young, having only recently finished full time schooling themselves. They have also faced challenges relating to some initial scepticism from their communities as to the motives of the Bible Society of Malawi organising literacy projects in predominantly Muslim areas. Teachers are often at the frontline for criticism from those who disapprove or are suspicious of literacy projects.

Teachers are trained full-time over the course of a two-week programme which has been carefully and specifically developed to teach Yao literacy to those starting from very low literacy, with clear step-by-step guidance for teachers. As discussed in the previous section, there are many commendable features of the structure and content of course materials, with strong evidence-based approaches to literacy tuition such as the order of teaching the key competencies of reading. The streamlining of course materials and the specificity with which teachers are trained to use those materials also helps to ensure that classes taking place at different times, in different locations, with different learners and teachers, are nonetheless likely to be reasonably consistent.

40% of training time is allocated to actually practising teaching – that is, having teachers rehearse standing in front of classes to deliver particular pieces of content – and following this with peer and expert feedback to improve their delivery and boost their confidence in the role. This active teaching approach (in contrast to a passive one, in which training is delivered in a purely top-down way) has two likely positive consequences; the first is the increased motivation of trainee teachers themselves; the second is that it increases the chance that that they will utilise similar collaborative, active approaches in their own teaching practice. It should be noted, however, that this is an assumption since there is no explicit

mention in the documentation of teachers being encouraged to teach in such a way.

In terms of payment, teachers receive an honorarium of 30,000 Malawi Kwacha (about US$40) per month. The amount of work required equates to about three days per week and the pay is higher than the government minimum wage. According to BSM interviewees, it is an amount sufficient to live on. By way of comparison, the level of remuneration is favourable compared to other government literacy programmes which pay around half that amount, but less than INGOs recruiting local staff in the region would typically pay.

These aforementioned aspects – remuneration, drawing teachers from local communities, teachers being mother tongue speakers – are to be commended. Some additional desirable features of teacher training are hard to draw full conclusions about, given insufficient evidence. For example, it is unclear the extent to which (if at all) teachers receive training on specific features of adult learning, such as the need to harness the metacognitive abilities of adults, or to gear teaching and practice to the different memory capabilities of adult learners. In addition, as touched on, it would be desirable for teachers to be explicitly trained in active rather than passive teaching approaches, rather than just hoping this is the practice they adopt. There are examples from the teacher guide of good practice in this regard. For example, in the section on fluency: if a learner is unable to read a word, instead of suggesting they provide the answer, the guide encourages teachers to break that word down into its constituent parts until the learner is able to recognise it for themselves. This is a simple, good illustration of an active approach, which uses scaffolding and encouragement to push learners just enough, and so empowers them to take control of their own progress. Further practice in active learning techniques - which might also include collaboration, discussions, games or peer-teaching - would be encouraged, given the evidence of the effectiveness of this approach[28].

It is also a consideration that teachers do not hold teaching qualifications (in many literacy programmes, teachers are qualified primary or secondary school teachers). Although there are clearly benefits to literacy being taught by those with an existing grounding in the theory

[28] Hativa, N. (2001). *Teaching for effective learning in higher education*. Springer Science & Business Media.

and practices of pedagogy, there is also likely a trade-off to be considered in terms both of relative cost (i.e., qualified teachers would need to be paid considerably more) and of community involvement, since qualified teachers would, in the case of Yao, likely be drawn not from local villages but from further afield. These difficult decisions and trade-offs make clear recommendations on this particular point hard to make.

Recommendations:

1. Teach teachers about the different needs of adult learners and equip them with the skills to gear their teaching accordingly.

2. Emphasise the benefits of teaching not in a traditional didactic manner, but in a way that encourages the active engagement of learners.

3. Critically review remuneration to ensure the highest quality teachers are involved and consider recruitment of Yao-speaking qualified teachers if possible.

Understanding learners

Note on 2019 baseline/endline assessment data

Due to the absence of computerised records, we have not had access to raw data detailing numbers and literacy levels of learners in the 2019 project. Interpreting the secondary data has raised certain issues. First, a large number (36%) of those enrolled at the start of 2019 courses were not assessed. Second, the procedure for testing is not entirely clear; for example, the documentation suggests that only the target group (namely, 'women of childbearing age who have not had the opportunity to learn to read') is measured at baseline and endline. However, there are some data which pertain to non-targeted groups, such as men or those starting above Level 0. Third, there are several small discrepancies in the

numbers in different reports. With these caveats, the 2019 numbers have been assessed, based chiefly on the 'Yao literacy endline test results 2019' document. This shows the following:

2019 learner outcomes

Baseline

- The total number of learners enrolled was 841 (815 women and 26 men).
- The total number of learners tested at baseline was 538 (64% of those enrolled). That is, 303 (36%) of learners were not tested. The individuals tested were predominantly those in the main target group (i.e., 'women of childbearing age who have not had the opportunity to learn to read').
- Of those tested, 439 were rated as Level 0 literacy, meaning they could not read any part of a simple sentence ('Pa moto pana makala' 'There is a pot in this corner').
- 61 were rated as Level 1, meaning they could read some of that same sentence.
- 40 were rated as Level 2, meaning they could read the sentence in its entirety.

Endline

- 520 learners were assessed at the end of the course. A result was considered a pass if learners could read a level 2 sentence (e.g., 'Cisakasa ca Fatima cipile moto' 'Fatima's temporary shelter has been burnt') with no more than 1 misread word.
- Of the 489 who started at Level 0, 347 passed (a pass rate of 71%)
- Of the 31 who started at Level 1, 31 passed (a pass rate of 100%)
- There does not appear to be endline data on those who started at Level 2
- A total of 378 learners from the target group graduated, having passed a basic reading assessment at the end of the course.

For comparison, in a review from the World Bank in 2003[29] it was reported that over the 32 literacy programmes for which data were available, the median attendance rate was 62%, the

[29] Abadzi, H. (2003). Improving Adult Literacy Outcomes: Lessons from Cognitive Research for Developing Countries. Directions in Development. World Bank.

median completion rate was 78%, and the pass rate 56%.

Ideally, an evaluation would include an analysis of data for every learner (i.e., all individuals who enrol) which would demonstrate the change in their level of literacy over the time of the literacy course. These data would allow key, basic questions such as 'How many learners who started at Level 0 progressed to Level 1/Level 2? Did those who started at Level 1 progress to Level 2 or beyond?' etc., to be clearly answered. A more thorough analysis would then link additional factors (e.g., number of lessons attended, demographic factors such as age or gender, or the specific class the learner was a part of) to outcomes. The goal for the next evaluation (of 2021 project) is that such data will be collected and made available to enable such an analysis. Collection of new, more detailed, baseline and endline data is already underway to facilitate that.

Some improvements could also be made in terms of clarity of terminology. For example, in some documents, Level 0 is defined as learners 'being unable to read anything', even single letters, and at other times learners are described as 'passing Level 0'. It would be clearer to describe all learners precisely and with example sentences/texts, by what they can achieve at different times, and to avoid unclear descriptions such as 'passing' certain levels. More systematic categorising of learners according to their current literacy level would also facilitate potentially beneficial practices such as having learners of similar levels sometimes work together in groups. Currently, although most learners are assessed, they are then taught on a whole class basis with no consideration of starting level.

Learner drop-out

One aspect of project highlighted by FiBS has been a concern over the rates of learner drop out. Dropout rates in adult literacy programmes can be high, with a plethora of possible causes of varying degrees of controllability. Part of this evaluation – and particularly of the follow up evaluation in 2022 – will be geared to better understanding the reasons for learner drop out here.

An important first note is that there appears to be a high demand for Yao literacy classes. The initial project aimed to reach 600 women in target groups in 2019, but this number had to be

revised upwards in light of local demand, such that the project actually enrolled 841 learners - 40% more than planned. This is very positive. It also suggests that it is unlikely that dropout was caused (as it is in some literacy programmes) by learners being reticent or coerced into doing classes they were never very enthusiastic about participating in. Rather, it suggests that women in the target groups perceive the relevance of literacy in their lives, a fundamental consideration of intrinsic motivation[30].

'Drop out' might not be as binary as it sounds. In 2019, some learners did completely stop coming to classes, but others were sporadic or irregular attenders, or joined courses late, sometimes with the intention of continuing classes in following years, or did attend but did not wish to be tested so do not contribute to outcome assessment numbers. So, although the raw numbers tested at start vs. end look stark (841 enrolled at the start, 520 tested at the end – a difference of 321 learners, suggesting a dropout rate of 38%), the actual dropout rates are lower, since there were additional learners who did attend some or all classes but were not tested, for a range of reasons. The 2019 annual report suggests that 229 learners of the original 841 did not complete the course, which would represent a lower dropout rate of 27%. The reasons given for learners not being tested were that some were irregular students, some refused the test because they felt they were not ready or because they felt they were behind their friends and could not catch up, and some did not want to be tested because they had been tested before.

The Erasmus/EU funded DIDO project (which stands for 'Dropping-in the Drop Outs') is a research organisation geared to understanding and addressing drop out from adult education courses[31]. Although its focus is Europe, their core findings are relevant here; of their key causes of drop out, the majority concern individual motivation – in relation to learner expectation not being met, a lack of well-defined goals, mismatch between a learner's skills and class requirements, and difficulties with class dynamics (usually between the teacher and learners, as opposed to amongst learners themselves). Their toolkit geared to addressing drop

[30] Duckworth, A. L., Kirby, T. A., Gollwitzer, A., & Oettingen, G. (2013). From Fantasy to Action: Mental Contrasting with Implementation Intentions (MCII) Improves Academic Performance in Children. *Social Psychological and Personality Science*, 4(6), 745–753.

[31] Silva, M. & Rodrigues, P. 2017. 'DIDO, Dropping-in the dropouts. Requirements Analysis Report. DIDO Toolkit to help understand and ameliorate drop out: https://sites.google.com/view/dido-toolkit-en/home?authuser=0

out is freely available and has many useful simple tools, such as the one shown in Figure 3, which illustrates a basic goal setting and feedback approach.

Figure 3. *DIDO approach to improving learner motivation by goal setting, reflection, and feedback.*

Regarding the Yao literacy project, the 2019 annual report and subsequent communication highlight certain challenges which were encountered by course teachers during classes. These included late joiners having difficulty keeping up, or higher literate learners being underchallenged, discouragement from individuals in the community (e.g., husbands not wanting their wives to attend classes), agricultural work demands, families moving to other villages and various external factors affecting attendance, notably Ramadan (the dates of which vary by year), teenage initiation (rites of passage) ceremonies often taking place in August (mid-course), farming needs and the May General Election in 2019. Discussions with those involved also suggest that many factors are interlinked – for example, if a few classes are missed due to, say, an important family ceremony, learners will be less inclined to return because they feel they have fallen behind and will struggle to catch up. There is also the contrasting possibility that, given many learners want to learn to write to overcome the embarrassment or shame of signing by thumbprint, learners might drop out when they have achieved this relatively simple goal of being able to read and write their own name.

The effects of poverty should also not be understated. Learners might have to make difficult financial choices about whether they can afford the time to go to a class compared to, say,

spending those same hours selling donuts for cash. If such causes turn out to underlie the majority of dropouts, they might point to potential benefits of offering some kind of financial incentive for attendance. Some financial incentives can be problematic – for example, sometimes loans are given to learners, but if learners find themselves unable to make repayments, they might be deterred by a sense of shame from attending further classes. Nonetheless, carefully considered financial incentives (not necessarily cash, but cash in kind – food vouchers, mobile phone top ups, etc.) could be an option worth exploring.

Another reason for drop out suggested in the documentation is simply 'laziness'. This subjective judgment might require further unpacking, since what might appear to be laziness might actually be a lack of motivation and engagement or disillusion with learning compared to expectations – that is, more tractable causes.

Dropout rates, as we have suggested, are rather a blunt instrument for understanding learner motivation. It is unspecific (we do not know *why* learners have stopped coming) and it appears as a binary (learners either drop out or they don't) but is more likely to be the end of a continuum, starting with low/decreased motivation and engagement, through occasional missing of lessons, through sporadic attendance to no attendance at all. Drop out is also demoralising for all concerned – and by the time a learner has stopped coming to classes, there might be little that can be done to persuade them back. Instead, understanding more about drop out – its causes, the timing of it (early or late into courses) and its significance to the learner (Are they glad to have stopped? Are they regretful?) are all vital to addressing it. In terms of tackling it, if drop out is primarily caused by outside events – e.g., the timing of agricultural work, then addressing it will involve very different action than if it is caused by learners feeling pessimistic about their ability ever to become literate.

In light of this currently missing evidence, the best that can be done is to make every effort to understand learners. Why do they want to learn to read and write? What use will they put their skills to? What, for them, would constitute success? How can goals be specified to help them articulate and achieve their goals in a series of practical steps which are clearly outlined

and benchmarked against?[32,33].

Our analysis of the documentation here suggests that there might be scope for adaptations to future courses so that individual learner motivations are better understood[34,35]. Research suggests that clearly identifying goals, first for learners themselves, then for teachers, can really help with ongoing motivation[36]. There is no evidence in the documentation supplied to suggest that goals of individual learner goals are sought and documented, or that these goals form the basis for ongoing monitoring of learner progress. Once goals have been articulated, it becomes possible to benchmark against them at all stages of courses, as well as allowing for future learning opportunities (i.e., once the taught course is finished) to be appropriately targeted. The evidence from the literature strongly supports the idea that the more that learners are actively motivated to learn, given tools to help monitor their own progress and work towards achievable goals, the more likely they are to stay.

By way of a starting point for such an initiative, we have added, for the 2021 cohort, a simple questionnaire for all learners to complete at enrolment (with follow up on course completion). This asks them about their motivation for learning to read and write; where do they hope to get to and what do they hope to do with their new skills? We would propose that this simple starting point is something upon which teachers can build, reminding learners of their end goal and ideally, setting a series of staging posts en route to help them meet their objective.

[32] Hidi, S., & Harackiewicz, J. M. (2000). Motivating the Academically Unmotivated: A Critical Issue for the 21st Century. *Review of Educational Research*, 70(2), 151–179.

[33] Education Endowment Foundation. (2018). *Teaching and Learning Toolkit*. Retrieved from https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit

[34] Ambrose, S., Bridges, M., Lovett, M., DiPietro, M., & Norman, M. (2010). *How Learning Works: 7 Research-Based Principles for Smart Teaching*. Centers for Teaching and Technology - Book Library. Retrieved from https://digitalcommons.georgiasouthern.edu/ct2-library/16

[35] Hirsh-Pasek, K., Zosh, J. M., Michnick, R., Gray, J. H., Robb, M. B., & Kaufman, J. (2015). Putting Education in "Educational" Apps: Lessons From the Science of Learning, 32.

[36] Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and Education: The Self-Determination Perspective. *Educational Psychologist*, 26(3–4), 325–346.

Recommendations:

We strongly recommend the collection of data to better understand the learners enrolling for classes. This includes not only their current literacy level but also their motivation to read and write.

Leading from this motivation, procedures and staging posts can be set, to work collaboratively with learners to actively work towards their goals.

Depending on what the results show, learners might also benefit from being grouped according to similar abilities and/or shared literacy goals.

Theme 3: Cultural considerations

In this section, we address cultural considerations that concern local community empowerment in literacy programmes, for example through involvement in course design and scheduling, teacher and learner selection, and facilitation of long-term usage of literacy by course graduates in their communities.

Our analysis suggests that involvement and buy-in of the local community has, appropriately and commendably, been put at the heart of project, from design to implementation and beyond. As the 2019 annual report states, “The partnership with chiefs and other community leaders contributed to the success and the effectiveness of the project" and efforts to harness engagement by chiefs and other local leaders appears to have reaped rewards. The fundamental decision to teach literacy in mother tongue languages (Yao, considered here, but also Lomwe and Sena) is hugely helpful in maximising local buy-in. Community mobilisation efforts resulted in the recruitment of 60 teachers from 30 villages, a really key ingredient of successful programmes. The fact that 2019 classes were so heavily oversubscribed is also a testament to the success in convincing local communities of the worth and benefit of learning to read and write. We would applaud these efforts. The following section further considers whether more might be done to improve the long term

maintenance and use of new literacy gains.

Post literacy classes

As we have emphasised, learning to read and write involves a long journey along a literacy continuum, as opposed to a transition from 'illiterate' to 'literate' as a result of attending a course spanning a few months. For literacy gains to be maintained and built on, it is essential that learners continue regular practice after taught courses are over.

There are some positive aspects to note here: post-literacy activities were held in 31 literacy centres for 361 learners in 2019, with learners meeting at least once a week. This is a strong base on which to potentially build. By building, we mean many potential things: increasing the number of centres offering activities, increasing the frequency of meetings to more than once a week, increasing the range and depth of reading materials available. This last is a difficult challenge, given the paucity of materials available in the Yao language, but the benefit of investing in the development of materials is that they become a resource for all future courses – in contrast to other efforts which might involve high recurring costs. If materials were available to assist learners in their daily lives (for example, health leaflets, vaccination information, business documents e.g., relating to micro-loans) they could be particularly beneficial.

Functional literacy (in which literacy efforts are yoked to work / business) and family literacy (in which newly literate mothers help their children's education) are both important in embedding literacy in meaningful endeavours. Interviews suggest that there is an expectation that newly literate mothers will assist their children with schoolwork, but there is no formal recognition, facilitation, or reward for such activities. Perhaps it carries its own reward for mothers, but it potentially also offers a great opportunity to embed new literacy knowledge and any more that can be done to encourage or reward it would be worth exploring. Similarly, the idea that women will use their new literacy skills for business transactions is hoped for rather than designed for. Again, there is potential here to strengthen ties with local banks and businesses, to develop initiatives to encourage and reward those who are newly able to read and write.

Mobile phones, if widely enough available (and by available, it is important to consider not just the hardware of phones themselves, but also access to data networks and electricity for charging) could be a potentially powerful tool to help the post-literacy class phase. Even activities as simple as exchanging messages between learners during courses could serve as an accessible, effective, and enjoyable tool to promote frequent retrieval of new knowledge[37]. If such practice is embedded during courses, there is more likelihood of it being continued beyond them. Other literacy courses have used simple Q&As or quizzes to learners to require them to both read and write on an (at least) daily basis[38].

Gender

Women are the key target group for literacy project and the great majority (97% of those enrolled in 2019) of learners are women. Because of this, serious consideration has been given to sensitivity around gender-related issues in the development of courses (timing, location, constituency) as well as course materials. Considerations include broad issues, such as mobilising, engaging, and empowering communities to understand the importance of literacy, particularly for women who have often been previously denied access to mother tongue training; women are likely to share their knowledge with children and other community members, acting as literacy 'force multipliers'. It also includes consideration of more specific matters, such as attention to the content (in terms of both images and words) of learning materials. To this end, a gender specialist has played a significant role in advising about the adaptation of materials to ensure they are culturally appropriate to women learners. Specifically, her focus has been to emphasise 'gender mainstreaming' to help improve women's welfare and to enforce the idea that women can take on a range of roles similar to men. She sees health, education and access to land and property as the key gender elements to include in materials and in discussions. More detailed evaluation of the gender-based changes to literacy materials in 2020 can be found in the section '2020 CBLD workshops'.

[37] Traxler, J. M. (2018). Learning With Mobiles in Developing Countries: Technology, Language, and Literacy. *Information and Technology Literacy: Concepts, Methodologies, Tools, and Applications*, 774–790.
[38] UNESCO Institute for Lifelong Learning. (2017, September 8). *Effective Literacy Programmes*. Retrieved from http://litbase.uil.unesco.org/

With regard to gender, there are a few areas worth considering further. These include an assessment, which will form a part of the 2022 evaluation, of whether gender-related issues contributed to drop out. Such issues might involve husbands being unsupportive of women participating in classes for a variety of reasons, or women being unable to attend classes because of overriding duties in the home. Recommendations regarding such matters could include provision of childcare alongside classes or recruiting chiefs and other community leaders to help persuade reluctant husbands of the benefits of literacy programmes, but it would be premature to say much more on this subject now, until we know more about women's experience on the ground.

Some other gender-relevant matters are connected with recommendations already made about embedding literacy practice and use in the long term. Scope for promoting family literacy, harnessing women's groups, and working with small businesses predominated by women, all potentially serve to improve not only reading and writing skills, but gender equality. Any such efforts should be encouraged, though we appreciate they involve a great deal of organisational work alongside the main work of delivering core literacy courses.

Additional languages

One issue we are unclear on is the role that other languages, particularly Chichewa, might play for learners, given that most, if not all, current learners are bilingual in Yao and Chichewa (Malawi's national language). This is both a practical question – i.e., to what extent are different languages currently available in print, on road signs, in health leaflets, school materials etc., and a psychological one – i.e., how are different languages perceived by learners? While teaching literacy *first* in mother tongue is undoubtedly beneficial in terms of motivation and engagement, subsequently the situation might become more complicated. Firstly, our impression, given the great efforts to create new Yao materials, is that there are not currently many existing written materials available in Yao and learners might be unlikely to encounter written Yao on a daily basis. Second and by contrast, there is an abundance of written material available in Chichewa since this is a national rather than regional language and all school children are taught to read and write Chichewa. Third, once students have mastered the fundamental building blocks of reading and writing, transferring these skills to

another, similar language which they already speak, is a much easier task.

It is thus an important consideration, assuming the goal is to help learners keep moving along the literacy continuum, to ask which language would best facilitate that? Once again there might be trade-offs – between what is ideally desired by learners and what, in practice, might best enable them to achieve their long-term, functional and family literacy goals.

Recommendations:

The key recommendations here involve something of a reconception of literacy programmes. Taught classes should be seen as comprising one part of a longer, ongoing relationship with learners, rather than the beginning and end in themselves.

In particular, more could be done alongside and after classes, to allow learners to embed, practice, and use reading and writing in their everyday life. There are a range of ways to do this, from the regular use of SMS messaging, to providing more classes more regularly, to forming partnerships with local communities – banks, business, schools, health clinics – to find opportunities for new readers to use their skills.

2020 CBLD workshops

The COVID-19 pandemic made it impossible to carry out in-person literacy classes in the 2020 season. This unforeseen instruction hiatus was used as an opportunity to spend time instead developing materials to improve learning outcomes for future course participants. Specifically, the goal was to develop 'natural, educative and unbiased stories, sensitive to the cultural and religious beliefs of the area', under the guidance of local community members. There were two areas of specific focus for improvement: gender sensitivity (ensuring stories were appropriate and appealing to women) and levelling (producing materials suitable for learners at different stages of their literacy journey). Given the importance both of gearing materials to individual learner needs and of ensuring successful training for women, we applaud the decision to focus materials development on these areas. The decision to work with individuals from the local community to develop the booklets was also commendable, in helping to ensure that the content would be relevant and meaningful to learners.

Levelling

Stories were developed for three levels of learner: beginner, developing and advanced. Differentiation of level was made on the basis of word count, sentence structure (e.g., presence/absence of sub clauses), vocabulary difficulty, punctuation (quantity and variety), layout (font size, number of illustrations) and overall content (e.g., beginner level stories featuring single event stories on a familiar topic; advanced level involving more complex plots based on new or unfamiliar topics). Our evaluation of the approach to levelling suggests that appropriate concern was given to all relevant features. The new levelled booklets will be very helpful in scaffolding learning, and encouraging learners to move, at their own pace with guidance from teachers, to greater levels of difficulty when they are ready. As mentioned previously with regard to active teaching, gentle encouragement and support for learners to take control of their own learning progress is an important component of successful learning, since empowered learners are likely to learn better.

Gender

A gender consultant was employed by the Bible Society of Malawi to help improve the gender

sensitivity of literacy materials. Their appraisal included an examination of the purpose and significance of the books to women and a more detailed consideration of the links between story, pictures and title of books. Alongside gender considerations, the materials development aimed to better promote positive messages about inclusivity of people with disabilities – for example, one story features Jenifa who was born blind and becomes the best farmer in her local area, with the highest crop yields.

Regarding gender, the stories were broadly commended for featuring the representation of women in diverse professions including train drivers, doctors, builders and farmers. At a more fine-grained level, the gender consultant made suggestions concerning aspects such as women's expressions in illustrations, or the particular duties they were portrayed performing. Alongside the team producing the booklets, a great deal of thought went into ensuring the cultural appropriateness of themes, illustrations and story content. The gender consultant's evaluation concluded that all the books (i.e., each level) highlighted the five key issues relating to gender in Malawi, namely gender inclusive education, leadership, human rights, health and access to land and property.

We agree with their main conclusions, namely that the book materials have been thoughtfully and appropriately developed with a view to gender sensitivity and that their benefits will be fully realised in conjunction with in-person instruction from teachers, as they reinforce messages regarding gender mainstreaming in the classroom.

5. LESSONS LEARNED AND RECOMMENDATIONS

An evaluation of the UBS/FiBS women's literacy project in the Malawian region of Yao for 2019-2020 suggests that the project is well attuned to the needs of learners and meets criteria for best practice across multiple areas. The team were particularly impressed by:

- The inclusion of phonemic awareness training in each session
- The way in which learners are encouraged to actively engage with materials in class
- The inclusion of regular and frequent revision sessions
- The project-wide emphasis on comprehension
- The recruitment and Yao-specific training of teachers
- The attention to gender sensitivity in learning materials
- The advocacy and mobilisation which have led to high demand for literacy classes
- The full engagement of local communities in many aspects of programme design and implementation

The evaluation team concluded that the project was relatively less strong when it came to making the most of the metacognitive skills of their adult learners, showing awareness of who learners are and what happens to them after the project ends. Continuing to support learners as they move further along the literacy continuum after leaving the project, and collecting data to evidence that move, would help maximise and demonstrate the impact of this important work.

Recommendations by theme

In this section the key recommendations made throughout this document are brought together by theme. The recommendations we make here are those which we believe to be concrete and achievable in the short term. We have also made suggestions for ongoing monitoring of programmes through data collection. We strongly believe that the routine, regular and rigorous collection of data will better enable the literacy team to demonstrate the impact and value of this work. In turn, this will reinforce the importance of improved

literacy to all stakeholders, and, importantly, will help to secure the ongoing support from financial backers that is so pivotal to long-term sustainability.

Pedagogical approach

- Build in more, and more varied metalinguistic awareness activities at the levels of the phoneme and the syllable.
- Build in variability wherever possible to promote flexible learning and support generalisation to other contexts.
- Include an additional monthly revision session.
- Help learners develop strategies to guide their own learning, such as drawing attention to common spelling patterns across rhyming words.
- Discuss learners' goals and expectations around fluency at the start of the project.
- Formalise support structures for women to engage in practice after the project.
- Monitoring: collect more comprehensive and in-depth baseline and endline data (see appendix) to assess the tangible impact of the literacy programme.

Teachers and learners

- Encourage learners to articulate and document their individual literacy goals at the start of courses.
- Train teachers in simple systematic approaches to help learners consistently monitor and work towards their goals.
- Group learners according to their literacy level where possible.
- Monitoring: collect comprehensive data on attendance, number of classes attended, time of enrolment and dropout where applicable.
- Monitoring: build in a longer-term (e.g., 3 or 6 months) assessment of learners to assess retention of new literacy knowledge.
- Monitoring: include questions on goals and motivation at baseline and endline assessments.

Cultural context

- Expand opportunities to embed new literacy knowledge, alongside and after taught courses, with more post-literacy classes.
- Consider use of SMS messaging as tool to encourage regular (i.e., daily) practice after course completion.
- Consider partnerships with local stakeholders (health, education, business outlets) to develop tools to promote literacy use by course graduates.
- Monitoring: qualitative data analysis to better understand reasons for dropout.
- Monitoring: assessment of mobile phone ownership (including network and electricity access)
- Monitoring: bring together base and endline data with financial data to produce estimates of cost of training per person per level of literacy gained

Recommendations for the evaluation of the 2021 project

The current evaluation of the 2019 literacy project will be followed up in 2022 with an evaluation of the LWA programme as delivered in 2021. This second evaluation is due to include a field visit to one or more sites of implementation; as such the evaluators will get a better sense of how the literacy programme works on the ground and will be able to build in suggestions based on direct observations of what happens on site in 2022. In order to write the evaluation of the 2021 programme, the evaluators request:

- More detailed data collection to establish literacy level at baseline and endline, to enable analysis of progress along literacy continuum (see appendix for copies of assessment tools)
- Questionnaires at baseline and endline to better understand motivations and goals before attending courses and (at end) extent to which goals are met
- Access to some learners who have not completed the course, to better understand reasons for dropout.
- Access to some learners who have completed the course to better understand long-term literacy opportunities and impact at individual level.
- Access to some teachers to better understand classroom practice and training.
- To see any materials developed to support learners after the project.
- To overview plans for data collection moving forward, with the goal of maximising the potential for long-term programme sustainability.

APPENDICES

1. Reference documents and materials

All reference documents are in the folder supplied by FiBS and included:

1. Documents

LWA_MAL_2015-2019_Project_Report_RB.pdf

Malawi travel report by MFA 2019 December.doc

MWI_LWA_19_ANNUAL-REPORT_Final.pdf

MWI_LWA_19-20_Project-Document.pdf

MWI_LWA_19-20_Results-Based-Framework.pdf

MWI_LWA_19-20_Flow-Chart-2016-2022.pdf

CBLD materials workshops 2020 including gender consultant reports

Yao literacy 2019 endline results.pptx

Assessment Yawo teachers 08-2019.docx

2. Materials

Teaching materials:

Yao_Primer_24.2.20_AV.pdf

YAO EN TEACHER'S GUIDE 21.2.2020 AV.pdf

A2 Alphabet char 21.2.2020.pdf

Supplementary reading materials:

2020, 15 booklets revised

1A CE KALUNGA KUMBILA NENG A ni ngani jimo-Yao-Inside

1B LIKOSWE NAGA LILI PA LULO NGALIKUSAWULAJIGWA ni ng-Yao-Inside

1C UKANGANI WA MGUNDA ni ngani jimo-Yao-Inside

1D MAMA ŴAMBONE-Yao-Inside

1E LIGONGO CICI NGUKU JIKUSAPALASAGA PASI ni ngani si-Yao-Inside

2A KUSOSEKWA KWA MAJIGANYO ni ngani sine-Yao-Inside

2B NDANDILILO JA CHILAMBO ni ngani sine-Yao-Inside

2C CEMBASYE WA MASILE MPIKA ni ngani sine-Yao-Inside

2D CANASA CAMWULEJE MSEPA MATULI-Yao-Inside

2E MLENDO AKUSAYIKA NI LWEMBA LWAKUTEMA-Yao-Inside

3A YINYAMA YETU-Yao-Inside

3B ADISI NI NDANGATANGA-Yao-Inside

3C CHIJIGANYO KWA WANACHE WANGAPIKANA ni ngani sine-Yao-Inside

3D UCIMWENE WA CE LIJANI ni ngani sine-Yao-Inside

3E KWENDE TULIMBICILE SUKULU-Yao-Inside

2020, Three levelled story collections**:**

1. KUŴALANGA Buku Jandanda-Yao-Pages
2. KUŴALANGA Buku Jaŵiri-Yao-Pages
3. KUŴALANGA Buku Jatatu-Yao-Pages

2020, Avoid Covid-19 booklet in Yao:

TUŴAMBALE ULWELE WA KOLONA-Yao-Pages

2. Baseline questions for new literacy learners: Yao

Baseline questions for new literacy learners: Yao

NAME:

What is the sex of the learner? *Please circle*

Male	Female

What village is the learner from?

How old is the learner? *Please circle*

Youth	Young adult	Middle adult	Older adult
under 20	20-40	40-60	over 60

Section 1: Baseline skills

Correct?

What letters are these?

t ☐

p ☐

w ☐

What word is this?

mata ☐

What does this sentence say? *Please underline the words read correctly*

Pa moto pana makala

Section 2: Background questions

Did you attend school as a child? ☐

How many languages do you speak? ☐

Which of these do you see at least once a week? *Tick all that apply*

- Printed words (like books, leaflets or children's school work) ☐
- Words on a screen (like texts on a phone) ☐
- Words outside (like signposts, posters, adverts) ☐

Does anybody close to you know how to read? *Tick all that apply*

- My child / children ☐
- My partner / husband / wife ☐
- My friends ☐

Why do you want to learn to read? *Tick all that apply*

- So I can use technology (like texting on a phone) ☐
- To help in my work or start a business ☐
- To help my children learn ☐
- To help me make good decisions (like reading health leaflets) ☐
- For another reason [what is that reason?] *Please write the reason below* ☐

3. Endline questions for new literacy learners: Yao

Endline questions for new literacy learners: Yao	NAME:

Section 1: Endline skills

	Correct?
What letters are these?	
m	☐
c	☐
s	☐
What word is this?	
makala	☐

What does this sentence say? *Please underline the words read correctly*

Pakona pano pana poto.

Cisakasa ca Fatima cipile moto.

Bulu ja mama jiwile jili jilile matimba gewanganye ni fetelesa.

Section 2: Endline questions

Would you like to continue learning to read? *Please circle* Yes No

You told us at the start why you wanted to learn to read, do you now feel able to: *Tick all that apply*

- So I can use technology (like texting on a phone) ☐
- To help in my work or start a business ☐
- To help my children learn ☐
- To help me make good decisions (like reading health leaflets) ☐
- Do something else important *Please specify below* ☐

Do you own a mobile phone?

Did you face any barriers to attending the course? *Tick all that apply*

- Needing to work ☐
- Harvesting/ sewing crops ☐
- Family problems ☐
- The course was not right for me ☐

What would have made it easier to attend? *Tick all that apply*

- Class being closer to home ☐
- Class being at a different time ☐
- Financial help ☐
- Support from my family ☐
- Something else *Please specify below* ☐

In one word, how do you feel about your reading now? ☐

4. An interactive evaluation spreadsheet

https://docs.google.com/spreadsheets/d/1KZsMJ3WOicmO7y9lnDIbxRn3nXqZjVkLaxeMJpF9MLQ/edit?usp=sharing

An interactive evaluation spreadsheet is designed to act as a checklist of the desirable properties of an adult literacy programme. It spells out, one by one, all elements of programmes which might contribute to their success - at all levels, i.e., from aspects related to how the adult brain learns, through to understanding the needs of learners and teachers, through to cultural factors which might have an impact. The spreadsheet is annotated with regard to the current evaluation of the Yao 2019 project, in a traffic light system where green highlights those elements which are currently being well executed, amber marks those which are being partially executed and red shows areas which might be considered as possible additions or adaptations in future programmes. Recommendations have been made for the specific implementation of any such changes.

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