

POLICY BRIEF 1:

Keeping households engaged in learning during school closures: Low tech learning support for children in Kano State, Nigeria

A small, action-oriented tracking study suggests that a package of remote learning support can increase parental engagement. More research is required to understand how parents are engaging and how this engagement varies for different child and parent characteristics. Policy Brief 2 outlines the support provided by KaLMA to improve educators' subject knowledge in English and Maths.

Background



By the end of March 2020, learning in over 107 countries across the world, including Nigeria, had come to a sudden halt as governments implemented national school closures to stem COVID-19 transmission

Before the outbreak of COVID-19 in March 2020, Kano State was taking measures to address the challenge of equipping children with literacy and numeracy skills. As part of their efforts to address this challenge, the Kano State Universal Basic Education Board (SUBEB) and the Federal Ministry of Education (FMoE) together with the British Council and Teaching at the Right Level (TaRL) Africa, and with support from the Foreign Commonwealth and Development Office, launched the Kano Literacy and Mathematics Accelerator (KaLMA) in October 2019 in Wudil and Dawakin Tofa with the aim of building foundational Maths, Hausa, and English literacy skills for 37,000 Primary 4 to Primary 6 girls and boys.

The results from the baseline of this programme, conducted in January 2020, confirmed the important need for foundational skills-focused programmes in upper primary (P4-P6): only seven percent of children could read a basic paragraph in their home language Hausa; three percent were able to respond yes or no to simple written questions in English, and just four percent were able to solve a simple 2 by 2 subtraction problem. In late March, the day before schools closed, a rapid assessment was conducted to assess whether learning gains had been made during the initial KaLMA implementation period. Teachers assessed children, and the data of 6,835 children (a sample of the total target children) was collected across Wudil and Dawakin Tofa¹. These assessments found that for this set of children the number who were able to read a simple Hausa paragraph had increased by 16 percentage points (pp) over the January-March period. The number of children who could answer a simple subtraction sum increased by 23 pp, while the number of children who could answer yes or no to simple written questions in English increased by 30 pp. The results were similar for girls and boys across all subjects.

Kano SUBEB and FMoE were eager to continue to support children's learning despite school closures and COVID-19 social distancing restrictions. While there is research on the risks of lengthy school closures and implications on children's learning², in April 2020 there was limited awareness and understanding locally of how to effectively support children's learning remotely during global pandemics.

¹While a total of 11,339 children were tested, the data of only 6,835 children could be collected through phone calls to the head teachers. Other head teachers could not be reached.

²Slade, Piper, Kaunda, King, and Ibrahim (2017) "Is Summer reading loss universal? Using ongoing literacy assessment in Malawi to estimate the loss from grade transition breaks".

The applicable evidence on ed-tech solutions that can be delivered at a distance was largely from higher income countries which have a different literacy and asset ownership landscape to that in Kano State. Between May and November 2020, Kano SUBEB and FMoE worked together with the British Council and TaRL Africa to leverage the KaLMA foundations and continue providing learning support to children and families in Wudil and Dawakin Tofa by sharing KaLMA-adapted learning activities that could be done at home, through low-tech delivery mechanisms such as radio, text message, automated voice message (AVM) and interactive voice response (IVR).³ This became known as the Home-Based Learning (HBL) programme.

Text Message

1 SMS per subject and 1 sensitisation message sent per week to caregivers

AVM (Automated Voice Messages)

1-minute recorded versions of the SMSs with additional elaboration

Radio

• 25-30 minutes broadcasts on 4 radio stations, 4 times per week . Feedback/phone-in session once a week for listeners

IVR (Interactive Voice Response)

Toll-free line for parents and children to access additional content and speak with a KaLMA representative

British Council and TaRL Africa interviewed caregivers periodically throughout the delivery of the HBL content to track engagement and challenges to inform ongoing adaptation and improvement. HBL is continuing in 2021, as home support remains critical given the uncertainty regarding COVID-19 triggered school closures. The HBL model has been augmented based on key findings from learning activities. The augmented mode includes learning level targeted text messages, radio programmes and worksheets. British Council and TaRL Africa quickly set up a high-frequency tracking survey of a sample of respondents to understand a) how the various components of the support package were being received and used, b) how they could be adjusted to be more helpful, and c) which components were more effective than others. The goal of this information gathering was to learn as quickly as possible with the resources available and to adjust the programme as the team learned more about how HBL was faring with the respondents and their children.

KEY Findings from HBL Tracking Survey

Caregiver engagement in children’s learning increased over time. This suggests that the programme content and delivery could have improved over time or that caregivers develop an appreciation for content over time and as such increase their engagement.

Caregiver engagement varied by literacy level and subject. Engagement was not uniform across subject or caregiver’s literacy level. On average, illiterate caregivers engaged less in their children’s learning and fewer caregivers engaged in their children’s English learning.

³The IVR platform housed the HBL toll-free line, additional learning content, survey questions for the teacher competency element, and daily AVMs for parents to access if the initial direct call was delivered at an inconvenient time.

Different support modalities were used differently. Text messages were most popular among caregivers surveyed, while radio and AVMs, which had the advantage of being understood by illiterate caregivers, were used less by respondents in the sample. However, the sample was made up largely of households who had access to a Hausa literate family member. More research is required to understand how these learning support modalities would fare for households that do not have this characteristic.

While learning progress was stunted during schools' closures, fewer children regressed than expected. The findings indicate lower learning loss than expected, although the sample was not representative of all the children in Wudil and Dawakin Tofa in P4-P6

Phone-based tracking of caregiver engagement
From June to July 2020, there were three cycles of phone-based surveying conducted. A small sample of 56 respondents was called every two to three weeks and asked a series of questions on how they were using the different components of the HBL programme.⁴ From August to September, the fourth cycle of phone-based surveying took place, and two additional groups of respondents were interviewed.

The first additional group comprised of 57 randomly selected respondents who had not been surveyed in the June-July period but had received all components of the HBL programme from June. This group of respondents were added to assess whether or not the monitoring calls were biasing the June-July findings. The second additional group was 47 randomly selected respondents, who had only started receiving HBL phone-based content from mid August⁵. This group was added to gauge if the length of exposure to HBL influenced engagement.

Phone-based learning assessments

In addition, the team piloted phone-based learning assessments with a small sample of children in March (52 children) and August (32 children). The reliability of these remote assessments could not be ascertained because of the small sample size and lack of data for cross verification; however, this did give some indicative insight on children's learning levels.

Teacher-led in person learning assessments.

As schools opened in October 2020, teachers assessed 23,680 children using KaLMA assessment tools to measure changes in children's learning during school closures. There were 9,311 children who were assessed in March and October in Hausa and Maths, and 2,231 children in English.

Findings from caregiver engagement tracking

Caregiver engagement in children's learning increased over time. From June to late July 2020, the proportion of caregivers who indicated that they had engaged in their children's learning using the HBL support components increased by 43 pp for male caregivers and by 50 pp for female caregivers. Also, in the fourth cycle of tracking, caregiver engagement for those who had received support from June was reported between 91% (tracked) and 100% (tracked), compared to just 68% of caregivers who had received support for less than two weeks. Caregivers' increased engagement could be driven by several factors. Caregivers may have gained an appreciation for the content over time, increasing the amount of time they dedicated to engaging with their children's learning. The content that was provided through HBL was also fine-tuned over the period, which may have boosted engagement

⁴The IVR platform housed the HBL toll-free line, additional learning content, survey questions for the teacher competency element, and daily AVMs for parents to access if the initial direct call was delivered at an inconvenient time.

⁵Different strategies to collect phone numbers were conducted over time. This meant that households would have different exposure to HBL based on when we were able to access their phone number.

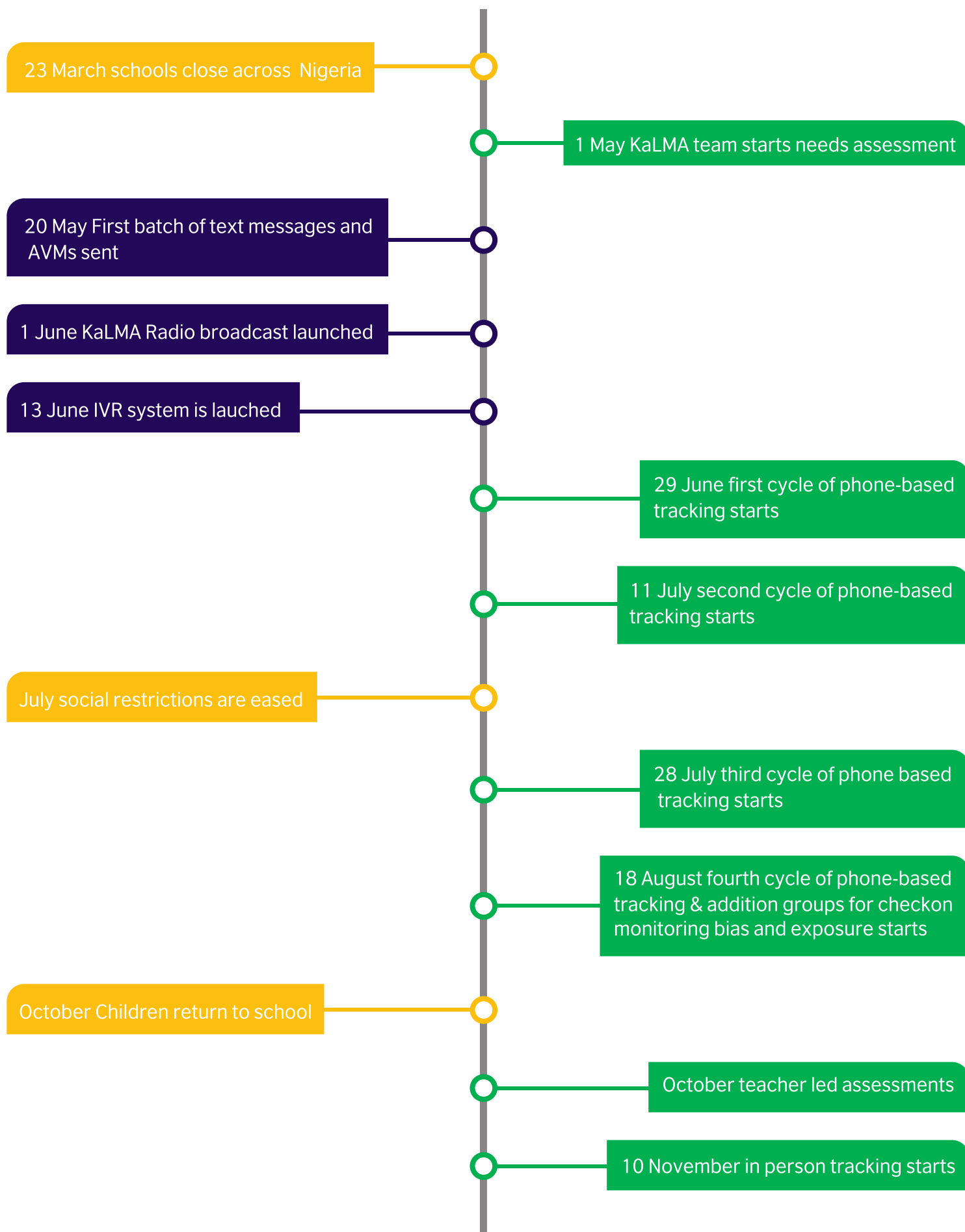


Figure 2: timeline of home-based learning programme activities and information gathering activities

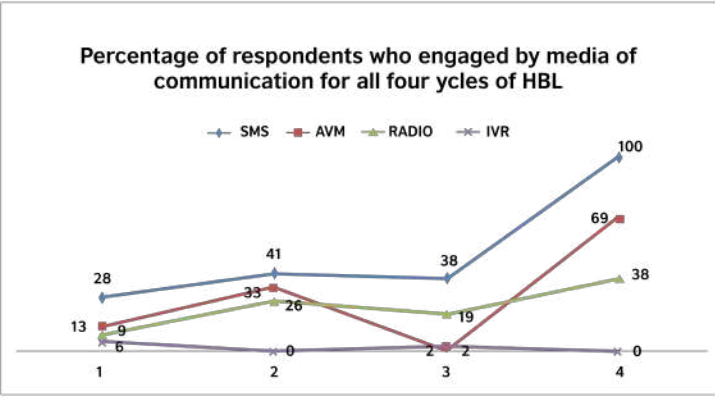


Figure 3: Percentage of respondents who engaged by the medium of support

Caregivers’ engagement varied by literacy level and subject.

Literate caregivers engaged in their children’s learning more than non-literate caregivers using the HBL support components. While engagement in children’s learning for both literate and non-literate caregivers increased over time, literate parents engaged more from the beginning and their engagement increased more steeply than non-literate caregivers between June and late July overall. The reported engagement of literate male caregivers, increased by 58 pp to 96%, while reported engagement of literate female caregivers increased by 60 pp to 100% from June to late July. Non-literate male caregivers reported engagement increased by 17pp to 57% over this period, while reported engagement for non-literate female caregivers increased from no one engaging in June to 66% of non-literate caregivers engaging by late July. There are a few reasons why this could have occurred. Firstly, literate parents are likely to be more educated and may value education more, which could drive them to spend more time on their children’s learning. Secondly, non-literate caregivers’ own inability to read and write may have limited the extent of the support they could provide to their children’s learning.

Caregivers found it more challenging to support their children’s English learning and did so less. In the third cycle of surveying, 33% of caregivers reported supporting their children’s English learning,

compared to 67% for Hausa and 76% for Math. This is likely connected to the caregivers’ level of comfort with English, a far less familiar language than Hausa: only 37% of the sample reported that they can read and write in English. In the fourth cycle of data collection, 39% of caregivers reported that they found the English content difficult or very difficult to engage with. Interestingly, it appears that caregivers do become more comfortable supporting their children’s English learning the longer they are exposed to HBL support. In the fourth cycle of surveying, we see that, on average, those caregivers who had been exposed to HBL for three months reported higher levels of comfort engaging with their children in English learning (59%) compared to those who had received HBL support for only two weeks (23%).

Different learning support modalities were used at different rates.

Text messages were used the most and were identified as the most effective and demanded medium of learning support by caregivers in the sample. In the fourth cycle of surveying, 94%of caregivers identified text messages as the most effective modality of learning support. Furthermore, 100% of caregivers requested to continue receiving learning content via text message in the fourth cycle. Reports from caregivers indicate that the preference for text messages is driven by convenience. Text messages can be used to support learning irrespective of the time of the day, and the ability to store past HBL text messages serves as an archive for the respondents which they can refer to at any time. While this sample of respondents indicated a strong preference for text messages, there are still open questions regarding the proportion of households in Wudil and Dawakin Tofa who were unable to access support through this medium due to issues of mobile phone ownership and literacy rates.

AVMs were used and valued by some caregivers, but the delivery mechanism limited usage and created irritation. AVMs have the advantage of being understood by illiterate parents. However, this

medium also faced some challenges. First, as AVMs are delivered as a “call” to caregivers, many caregivers reported the calls coming through at times that were inconvenient for them and when they were not with their children. Second, if the household only has one mobile phone it could limit access to the call for primary caregivers who are supporting children’s learning. This is suggested by the reduction in female caregivers who used AVMs to support their children’s learning once lockdown conditions eased. Between early July and late July, the proportion of female respondents who accessed AVMs, conditional on them being aware of AVMs, decreased from 100% to 67%. This may have been because they no longer had immediate and continuous access to their partners’ phones limiting their ability to support their children’s learning with KaLMA material. Third, respondents complained that poor reception often made it challenging to hear what was being said and that it was misidentified as advertising.

To address these concerns, from August onwards, AVMs were only delivered to those who opted to receive them and were designed to be accessed via a toll-free line rather than receiving the messages as a call. However, this created new barriers to AVM use, such as having to “call-in” to receive content and the fear of this being charged, as well as having to navigate an Interactive Voice Recording (IVR) system to access the material.

Caregivers’ use of radio to support learning increased over time, but the fixed schedule for radio shows limited access to their content for parts of the population.

The proportion of caregivers who listened to KaLMA radio shows to support their children’s learning increased from 9% in June to 35% in August.

However, parts of the population may have been unable to use the radio shows to support learning because they take place at a fixed time or because they do not have radio access. As this may be placing a cap on the numbers who can access this learning support modality, the British Council and TaRL Africa are now exploring whether SD cards could solve this

issue through a small-scale pilot. The small-scale pilot will make the audio content available to households on SD cards, thus enabling the resource to be engaged at any time and as often as desired for learning purposes.

Findings from Phone-based learning assessments

Conducting phone-based learning assessments presents a unique set of challenges, and more work is needed to ascertain the reliability and validity of their results.

In the Kano context, simple phones remain the only remote means through which children can be assessed at scale. However, remote phone-based assessments come with a new set of challenges.

- Caregivers are often not with their children until late at night. This means setting up a time for assessment can be difficult. Often, repeated calls were required before the surveyors were able to administer the assessment.
- Both children and caregivers are new to learning assessments via phone interviews. Therefore, it is important to conduct sensitisation ahead of the assessments to facilitate caregiver’s full cooperation and that instructions and the assessment are short and simple to conduct.
- Caregivers and siblings may provide prompts to children to help them get the correct answer. It is important that surveyors look out for this kind of behaviour and that the tool builds in steps (such as explaining how you solved the sum) to ensure that the child is answering the question themselves without assistance.

Findings from teacher-led in person learning assessments

While learning progress was stunted during school closures, fewer children regressed than expected.

A paper on simulations of the impact of COVID-19 school closures predicted that if schools were closed for 5 months, there could be as much as a 25% increase (from 40% to 50%) in the share of lower

secondary-aged children who are below the minimum level of proficiency.⁶ We do not have representative data for all the children in P4-P6 in Wudil and Dawakin Tofa for the school closure period. However, we do have Hausa and Maths results for 9311 P4-P6 children who were present during the March and the October assessments. Analysing these results, we find the proportion of children below paragraph level in Hausa increased by 1 pp (from 80% to 81%) and the proportion of children below subtraction level in Math increased by 6 pp (from 80% to 86%).⁷

Figure 4 below shows how learning outcomes of children changed between March and October for the children who were assessed both before school closures (March) and after school closures (October) on their Hausa and Math skills for a sample of 9,311 children (4,876 F, 4,435 M).⁸ The graph illustrates a small proportion made some progress, 16% for Maths for both boys and girls, and 18% and 19% for Hausa for girls and boys, respectively. The high proportions of children remained at the same level or regressed strongly motivate for a focus on foundational reading and Maths skills.

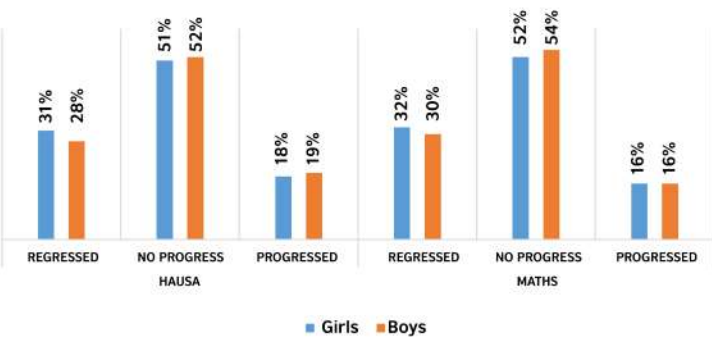


Figure 4: Changes in learning outcomes during school closures in Hausa reading and mathematics

For English, we analysed a sample of 2,231 children (1,027 F, 1,186 M) who were assessed in March and October.⁹ Figure 5 illustrates that between 26% and 30% of children made progress in both the English listening and speaking and reading. Finally, between 24% and 26% of children regressed across listening and speaking and reading. Across all subjects we notice that a) changes in learning levels were similar for boys and girls b) learning gains were mostly made

by the children who were at the lowest levels in March 2020.

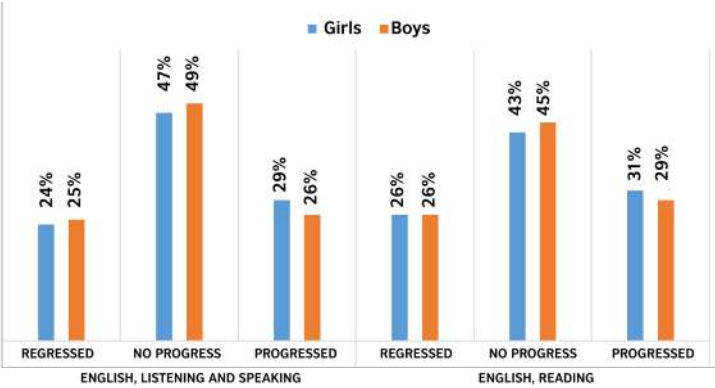


Figure 5: Changes in learning outcomes during school closures in English listening and speaking and reading

Policy lessons

Primary caregivers face several barriers in effectively accessing learning support for their children.

How contact details are collected and how remote tech-based support is crafted could help address this.

Gathering phone numbers of caregivers from school records was very challenging for the KaLMA team. Many school records were incomplete and generally included the contact details of the head of the household rather than the primary caregiver. This meant that often the HBL learning support efforts were not being targeted at the most appropriate person. Complete school records which include contact details of the caregiver most likely to provide learning support could go a long way towards better communication targeting and more effective home-based learning programmes.

Policymakers and practitioners also need to consider technology ownership in the household. If there is only one person with access to a phone or a radio and it usually remains in their possession, this medium needs to be transferred (usually from the head of household) to the primary caregiver for it to be effective. Exploring low tech remote solutions that are not time-bound, can be stored on a device, and accessed or shared later, such as SD cards, could also help address this issue.

⁶Azevedo, Hasan, Golemborg, Iqbal, Geven (2020) "Simulating the Potential Impacts COVID-19 School closures and Learning Outcomes: A set of Global Estimates." World Bank

⁷The dual language approach was conducted in one local government, Dawakin Tofa, which is why there is a smaller sample size.

⁸Child-wise data was collected from all schools in October and therefore the data of those schools whose head teachers could not be reached via phone calls in March, are also reported here.

⁹The dual language approach was conducted in one local government, Dawakin Tofa, which is why there is a smaller sample size.

Sensitisation efforts in times of change are critical for take-up.

Doing things differently requires community buy-in. The HBL delivery team quickly learned that without building buy-in around the importance of education and the shift in responsibility from teachers to caregivers due to COVID-19 school closures, HBL efforts would be seriously hampered. From the first round of surveying, we observed that household awareness of HBL was very low. We then ran a series of sensitisation efforts which boosted not only awareness in the second round but also engagement.

Feedback mechanisms to catch technology snags and adapt content is key for continued improvement.

While our tracking exercise only reached a small sample of households it enabled us to catch technology snags (such as symbols replacing certain letters in a text message on certain phones) and gather feedback on the kinds of content that households needed to support their children's learning. For policymakers and practitioners engaging in remote learning programmes, it will be key to incorporate some kind of feedback mechanism to allow for adaptation and improvement.

The learning crisis has been exacerbated by school closures and there is a strong need for accelerated learning programmes which focus on foundational skills.

While a great deal has been learned regarding how to deliver home based resources to support children's learning, this is by no means a substitute to schooling in communities with limited access to technology and low levels of household literacy. The assessments conducted over the course of 2020 highlight the low levels of foundational skills in upper primary that urgently need to be addressed.

Limitations

The HBL engagement findings are based on a small sample, action-oriented study. Given the sample size and the method of data collection, through a phone-based survey, these findings cannot be

generalised to the target population as a whole. However, they do provide useful insights into considerations when designing a home-based education programme which relies on technological delivery.

The learning outcome findings draw from in-person assessments that were conducted in January, March, and October 2020. It is important to note that the analysis was conducted for children for whom we had assessment results at each cycle, rather than a full sample or a random sample. Thus, the results are not representative of all the children in P4-P6 in Wudil and Dawakin Tofa, and only describe the learning of the children in the sample.

The findings from these data collection efforts flag areas for further research, such as the impact of home-based learning programmes on learning outcomes in rural, developing country contexts, including non-literate households, how to effectively complement accelerated learning efforts in the classroom with remote home-based support; and how households with few assets and limited access to technology can best be supported during school closures.