

POLICY BRIEF 3:

Kano Literacy and Maths Accelerator (KaLMA) – Improving foundational literacy and numeracy skills using the Teaching at the Right Level (TaRL) approach



Policy brief 3 describes how a government-led accelerated learning programme which adopted the evidence-based Teaching at the Right Level approach for pupils in Primary 4 to 6 improved learning outcomes over a short period of time.



Introduction and Programme Overview

Many pupils in Nigeria do not acquire foundational reading and Maths skills in the first few years of primary school, and without an opportunity to catch-up, they finish primary school without these basic skills. Rigorous evaluations have found that the Teaching at the Right Level approach, when well implemented, improves pupils' learning outcomes, allowing pupils to quickly acquire foundational skills in middle-upper primary.

In response to low levels of foundational learning in the upper primary grades, the Kano Literacy and Mathematics Accelerator (KaLMA) pilot was launched in October 2019 by the Kano State Universal Basic Education Board (SUBEB), Ministry of Education and Sa'adatu Rimi College of Education, in collaboration with the British Council and Teaching at the Right Level (TaRL) Africa, via funding from the UK government's Foreign, Commonwealth and Development Office (FCDO). The programme aimed to build foundational Maths, Hausa and English literacy skills through a government-led, scalable and sustainable accelerated learning model piloted in two full local government areas (LGAs), Dawakin Tofa and Wudil, in Kano State, reaching over 30,000

pupils. The results from the initial baseline of this programme, conducted in January 2020, confirmed the important need for foundational skills-focused programmes. In upper primary: only 7 percent of pupils could read a basic paragraph in Hausa; 3 percent were able to respond 'yes' or 'no' to a simple oral question in English, and just 4 percent were able to solve a simple 2-digit by 2-digit subtraction problem.

KaLMA is rooted in the Teaching at the Right Level evidence and approach. This accelerated learning approach involves assessing pupils on foundational skills and grouping them by learning level rather than age or grade level for two hours per day when they focus on foundational skills in reading and arithmetic through a combination of individual, group, and whole-class activities. What happens in the classroom is supported by a number of enabling components. Support teams, such as mentors and master trainers, are developed through a process of learning by doing which involves interactive training and mentored practice classes. Assessment data are used by teachers in the classroom to group pupils, by mentors to direct where their support is most

needed, and by state governments to understand which geographies are performing well. It is also shared with the community to catalyse parental engagement. In the KaLMA programme, these enabling components were embedded in existing government systems. The pilot also included the innovative dual-language approach to developing foundational skills in English. This approach deploys the pupils' home language, Hausa, to assist their learning of an additional one, English.

Due to COVID-19 related school closures, the pilot was put on hold from April to December 2020 and resumed in schools in January 2021. In addition to in-school activities, pupils were provided with worksheets, interested parents received tailored text messages (three times a week) with activities to do with their pupils, and radio shows with foundational skills' content were broadcast to mitigate learning loss should schools be forced to close again. This brief focuses on lessons from in-school activities; a separate brief is available on the programme's home-based learning (HBL) activities.

In order to maximize learning over the pilot period, British Council and TaRL Africa conducted a number of data collection and analysis exercises including supporting the government to analyse teacher-led assessment data to gauge learning

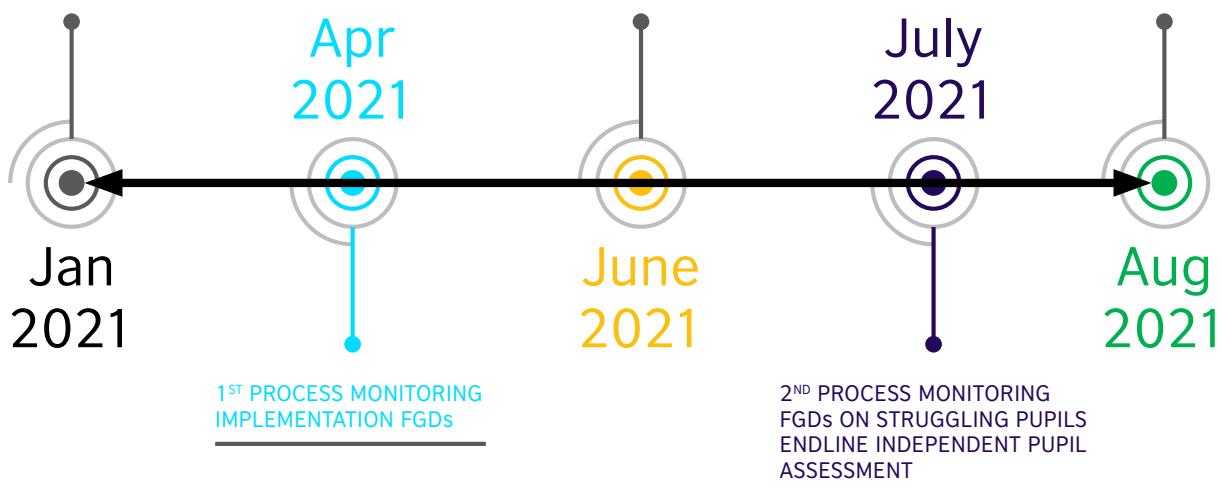
progress – data collection took place in January, April and December 2021 for over 30,000 pupils in 180 schools - and conducting focus group discussions with pupils, teachers, and parents. In addition, with support from the Knowledge and Innovation Exchange (KIX), TaRL Africa designed and analysed three rounds of process monitoring, with data collection support from Practical Sampling International (PSI). The process monitoring involved classroom observations and school staff interviews at 30 schools randomly selected across Wudil and Dawakin Tofa LGAs.



BASELINE ASSESSMENT
IN SCHOOLS
BASELINE INDEPENDENT
PUPIL ASSESSMENT

MIDLINE ASSESSMENT

ENDLINE ASSESSMENT



Findings from KaLMA Research and Learning Activities

Teacher-led assessments of over 30,000 pupils suggest improvements in foundational skill acquisition over the pilot period. However, as almost all pupils were unable to read or do basic Maths at baseline, a large proportion of pupils are still in need of foundational skill development at the end of the programme.

The percentage of pupils who had foundational skills in the three subjects at baseline was very low (only 7% could read a paragraph in Hausa, 4% could perform a 2digit x 2digit subtraction, and just 10% could read a sentence in English). The proportion of

pupils who could read a paragraph in Hausa, solve a subtraction problem in Maths, and read a sentence in English increased by 18 percentage points (pp), 18 pp, and 11 pp respectively over the seven-month pilot period (Figure 2).

The improvements recorded were larger in the lower-level skills groups. For example, there was a 36-pp improvement in the proportion of pupils who could read words in Hausa and of those who could recognise 2-digit numbers. There was also a 39-pp increase in the proportion of pupils who could respond to a simple greeting in English (Figure 3).

Foundational Skills

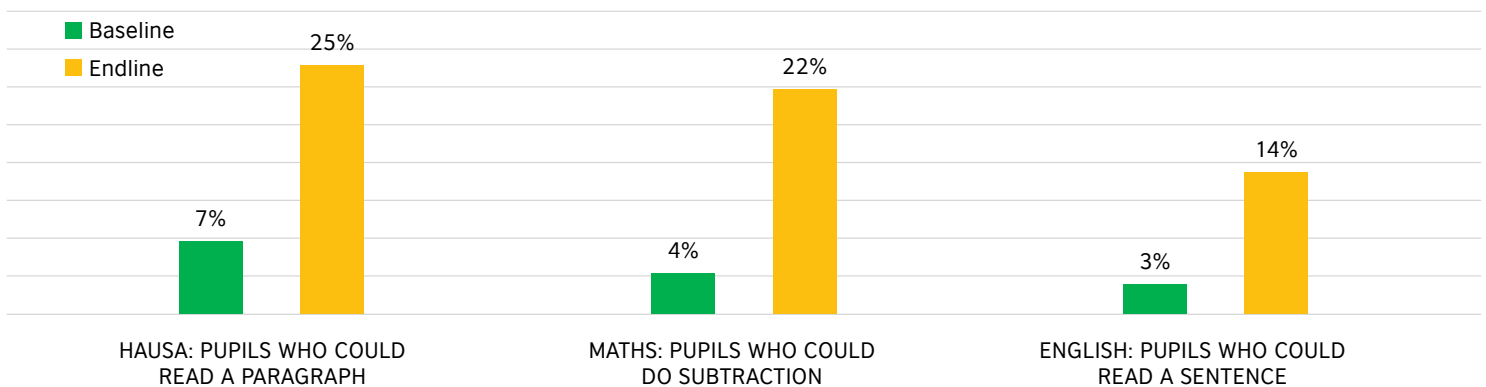


Figure 2: Learning level improvement for foundational skills in English, Hausa, and Maths

Lower Level Skills

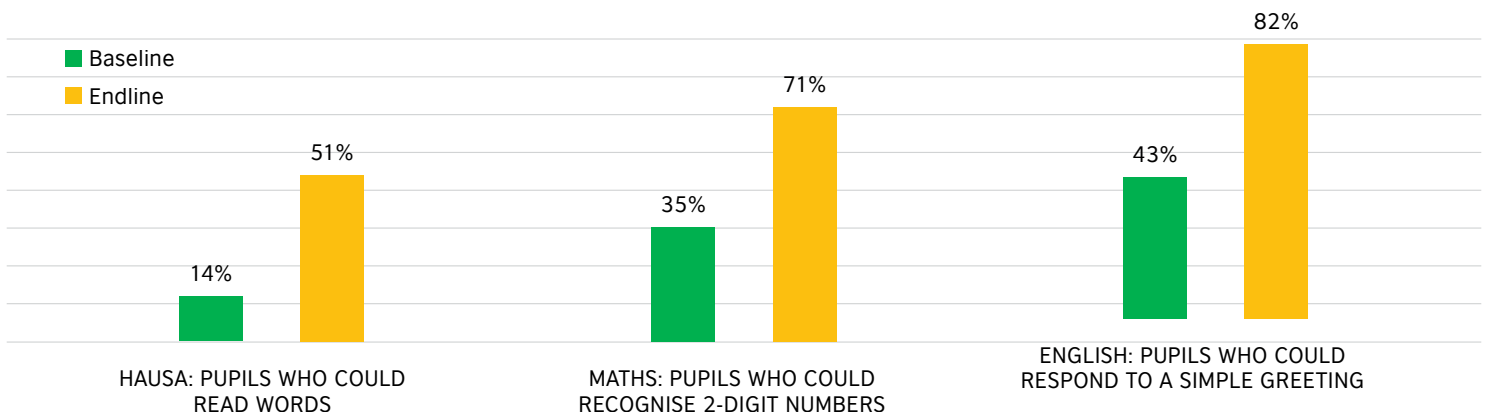


Figure 3: Learning level improvement for lower-level skills in Hausa Maths and English



There are a number of reasons why we may see larger improvement in lower-level skills. Firstly, many learning facilitators (teachers) have limited ability in the higher-order skills, which may mean that they lack confidence in facilitating children’s development of more difficult skills (especially in English and Maths). Secondly, facilitators did not always have homogenous learning level groups in their KaLMA sessions due to teacher absenteeism. Managing multiple learning level groups in one session could be challenging for facilitators, and their skills in how to manage a multi-level group were not fully developed during their training. Finally, pupils may simply not have had enough time to develop the full set of foundational skills, given the vast majority started with few recognised skills, being unable to identify letters or numbers.

In addition to teacher-led assessments, assessment data were also collected by Oxford Policy Management (OPM) in Wudil and Dawakin Tofa, as well as in five comparison local governments, in January 2021 and again in August 2021, in order to conduct a difference-in-difference (DiD) evaluation of the KaLMA programme. The results from the DiD evaluation find a consistent, statistically significant, positive impact of the programme on Maths outcomes, of between 0.1 and 0.26 standard deviations. When comparing the independent assessments with the teacher-led ones, we find that teachers tend to mark more leniently than enumerators at the endline. Future KaLMA programming needs to strengthen monitoring systems, further emphasise the purpose of assessments as being a tool to inform programming rather than to evaluate facilitators and investigate

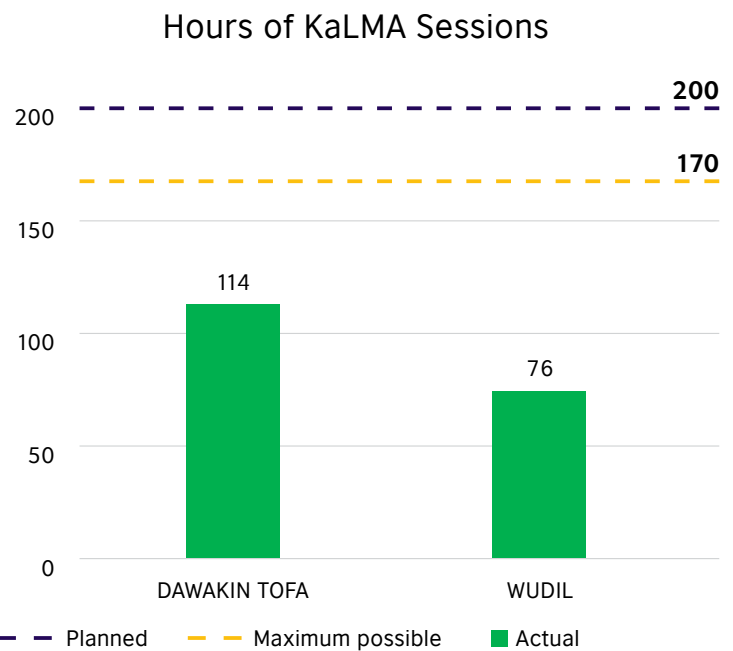


Figure 4: Hours of KaLMA instruction

ways in which testing tools might be simplified to minimise the burden this places on teachers.

The hours implemented for KaLMA sessions were considerably less than the planned number of hours for instruction

Process monitoring data on the number of KaLMA classes held indicate that only about 40 - 60% of the class time planned actually happened. Figure 4 illustrates the number of planned hours compared to an estimate of the number of classes held in practice. The blue dotted line indicates how many hours could have been achieved before the school calendar changed due to COVID-related school closures. In

yellow is the maximum number of hours possible based on the updated school calendar, published when schools reopened. The change in the school calendar announced a few weeks into Term 1 meant that the originally planned 200 hours of instruction were reduced to only 170 hours of possible implementation time. The bars in green show an estimate of the number of hours of KaLMA sessions that actually took place. There are a number of reasons why there were fewer hours than planned. One factor is that due to the change in the school calendar, the month of Ramadan fell within school time which resulted in reduced days of instruction. We also see in the data a trend for classes to take place on Monday to Thursday but often not on Fridays, especially in Wudil LGA where a large weekly market takes place then.

In addition to there being fewer hours of KaLMA instruction than planned, there are low levels of pupil and teacher attendance due to heavy rains and flooding in the rainy season (April – September), to some schools being damaged due to these heavy rains, and to pupils working to support their parents on the family's smallholding during the farming season. Furthermore, weak session planning from some teachers, and problems with pupils' punctuality, meant that a number of classes that were held could not be fully utilised.

Replacing the English session in the KaLMA timetable with Hausa only may inhibit pupils' progress in English

KaLMA classes were scheduled to take place for two hours every day during the normally timetabled (English) literacy and numeracy period. In Dawakin Tofa, the literacy period was replaced with Hausa and English sessions through the dual-language approach, while in Wudil the literacy period was replaced with Hausa only. Therefore, by introducing KaLMA in Wudil, time spent on Hausa there was increased; however, this meant in practice that time spent on English was curtailed.

In Wudil, where the programme did not include English, pupils performed worse in English as compared to pupils in comparison local government areas (LGAs), who did not receive KaLMA. This suggests that not including English in KaLMA actually restricted pupils' learning in English because the time that is usually spent on English was spent on Hausa instead.

Programme and Policy Lessons

Evidence-based accelerated learning approaches, such as Teaching at the Right Level, delivered within government systems and by government personnel, can improve pupils' foundational learning outcomes.

Teaching at the Right Level programmes have effectively increased pupils' learning outcomes across a number of different contexts. KaLMA research and learning shows that a scalable and sustainable TaRL delivery model, when designed collaboratively and carefully, can improve pupils' foundational skills in the Northern Nigerian context.

Given the state of the learning crisis in Nigeria, as well as the erosion of session time due to a range of factors, accelerated learning programmes could be more effective if they run for longer and over multiple years.

Process monitoring data on the number of KaLMA learning sessions held indicates that only about 40 to 60% of the time planned for this actually happened. In addition, larger learning gains were achieved at the lower learning levels, and at the end of the programme a sizeable proportion of pupils was still unable to read or do basic Maths. This suggests that accelerated learning programmes could achieve more if they run for all three terms of the school year and may need to be run for consecutive years to ensure all pupils exit primary school with basic foundational literacy and numeracy skills.

Incorporating accelerated learning in English in the upper primary years may be key to ensuring that pupils do not fall behind on acquiring skills in this language, the designated language of learning and teaching (LoLT) in upper primary.

The KaLMA pilot trialled the dual language approach to learning English. There is still more to learn about how to help pupils effectively transition from Hausa to English; however, the findings strongly suggest that replacing the English literacy period with Hausa only can hinder pupils' progress in English and, in turn, impede their ability to learn other subjects in English in the upper primary cycle.