

## Scaling Education Innovation: A Pathway to Inclusive Education Systems in Nigeria?

### Introduction

This paper will start by first defining key terms that appear frequently and thus set the premise for the idea of the paper. Education can be defined in a variety of ways, depending on who you ask, but a universal concept is that education is a process that should lead to learning (i.e. acquiring new knowledge, skills and/or experiences). One of my favourite definitions of education therefore is, “a lifelong process of learning, unlearning and relearning.”

Innovation simply refers to new ideas, technologies, methods or products<sup>1</sup>. Contextually, innovation in education can be described as an intervention or a package of interventions designed to increase access to and quality of education. Innovation, particularly education innovation, is therefore not limited to new technology or new products. Innovation could be a new accountability mechanism or management approach, or simply service delivery to a different location or context.

What then is this idea of scaling education innovation? Scaling education innovation is an intentional process of planning, designing and facilitating the widespread adoption of an intervention to improve access and quality of education. Scaling up researchers and practitioners, ExpandNet, define scaling up as, “deliberate efforts to increase the impact of innovations successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and program development on a lasting basis” (ExpandNet, 2019)<sup>2</sup>. Considering pathways to more inclusive education systems, the emphasis lies strongly on benefitting more people and fostering policy and program (or institutional) development on a lasting basis. It is not sustainable to have interventions that provide inclusion for marginalised and vulnerable groups, but particular attention needs to be given to developing a more **inclusive education system** that provides quality and equitable opportunities to all children including indigenous, orphans and vulnerable children and children with disabilities<sup>3</sup>.

This paper will therefore highlight education innovations such as; the Combined Activities for Maximised Learning (CAMaL) model for remedial pedagogy also known as the Teaching at the Right Level (TaRL), and the Mavis Education Model™ (MEM) which have shown measurable results in improving access and quality of education for children in limited areas in Nigeria. The idea of scaling education innovation is therefore about expanding or replicating effective solutions observed in specific locations and contexts in systems and institutions in order to benefit more people and establish long lasting change.

### Background

Nigeria has an estimated 10.3 million children out-of-school, of which approximately 60% are female. Moreover, children in school typically learn very little - 76% of school pupils are unable to read at second grade level<sup>4</sup>. The education system also suffers from insufficient and poorly administered funding, ineffective monitoring, un-motivated teachers and teacher shortages.

These challenges show that Nigeria clearly has broader challenges with inclusion and inclusive education systems. Given this background, it is quite clear that all stakeholders – private and public – need to collaborate and strategically consider how to scale (institutionalise) successfully-tested components of education interventions. Some may make the argument for just expansion and

<sup>1</sup> <https://en.wikipedia.org/wiki/Innovation>

<sup>2</sup> <https://expandnet.net/scaling-up-definition/>

<sup>3</sup> <https://education.gov.gy/web/index.php/item/474-developing-an-inclusive-education-system>

<sup>4</sup> LEARNigeria data. Find source

replication – “Why do we need institutionalisation?” However, the more we increase the scope for expansion or replication, the more we need systems and institutions to adapt in order to replicate the same solution in multiple, varied contexts and environments.

According to MSI (2012), “Replication involves the increased use of a particular process, technology, or model of service delivery by getting others, including the public sector, to take up and implement the model. In these cases, an arms-length relationship between the originating and “adopting” organizations exists. One of the most common types of replication is policy adoption, where a model is scaled up from a pilot run by an NGO, community group, or private company to a programme or practice mandated and often run by the public sector”. This type of situation therefore requires an intentional and facilitated process of transferring the originating organisation to the adopting one, while strengthening the relationship between the two parties.

This paper will explore using the specific cases of two innovative education interventions which not only improve education quality and access, but also do not further exclude the most vulnerable children and stakeholders in the system, while increasing access and quality for those currently excluded.

### **CAMaL (Combined Activities for Maximised Learning)**

The Combined Activities for Maximised Learning (CAMaL) model is an innovative approach to pedagogy that focuses on remedial and accelerated learning. CAMaL is a pedagogy created by Pratham to develop children’s basic abilities in reading and arithmetic. CAMaL facilitates learning through structured activities that lead to the development of different competencies, viz. reading, writing, listening, speaking and doing. The activities are introduced in such a way that they ensure learning by helping the child move from simple to complex and from concrete to abstract. *A balance between challenge and support thus characterizes the activities of CAMaL* (Pratham, 2019)<sup>5</sup>.

Fundamental to the CAMaL approach is the grouping of children based on their learning levels rather than on the class in which they are enrolled. Each group of children is then taught using activities and materials designed to help them to move to the next level. In this way, each child in the group is provided the help he/she needs in order to progress. This is known as the concept of ‘Teaching at the Right Level.’

CAMaL can be delivered by volunteer teachers as well as professional teachers. The approach involves evaluating students using a simple assessment tool and then grouping them according to their learning level rather than age or grade. The teachers dedicate time to basic skills rather than focusing solely on the curriculum; and regularly assessing student performance, rather than relying only on end-of-year examinations. Since 2001, J-PAL-affiliated researchers have rigorously tested the theory of change underlying Pratham’s *Teaching at the Right Level* approach. Through 6 randomised evaluations in India, as well as a growing body of research in Africa, they find that when TaRL is successfully implemented, learning outcomes improve.

In Nigeria, the CAMaL (TaRL) approach was tested based on data collected by citizen-led assessment and advocacy programme, LEARNigeria. LEARNigeria, an acronym for Let’s Engage, Assess & Report Nigeria, is an innovative citizen-led household assessment of learning that assesses foundational literacy and numeracy competencies among children aged 5-15 years in Nigeria. LEARNigeria aims to determine foundational numeracy and literacy competencies in Nigeria’s children and strengthen the agency of government and community stakeholders to take action which will strengthen teaching and learning in Nigeria. The programme began in 2015 and has been carried out in six states of the

<sup>5</sup> CAMaL concept note. Add reference

federation with a bid to scale up to twelve states in the 2019/2020 cycle. LEARNigeria data reveals that in:

**KANO:** Only 6% of boys in Primary 3 can read at Primary 2 competence (story) level while only 10% of Girls in Primary 3 can read at story level

**AKWA IBOM:** Only 20% of boys in Primary 3 can read at Primary 2 competence (story) level while only 22% of girls in Primary 3 can read at story level<sup>6</sup>

Based on this baseline, the CAMaL model was tested in these states via the LEARNigeria remedial programme<sup>7</sup>. This approach has been seen to radically improve children's literacy and numeracy skills within the period of engagement. Pilot results show that:

**After 24 days of CAMaL intervention in Kano, Literacy:**

- the share of children at beginner (reading) level dropped from 70 percent to 33 percent
- share of children competent at story level (indicator of basic literacy) increased from zero to 7 percent

**Numeracy:**

- the share of children who were only able to recognise one-digit numbers reduced from 20 per cent to 5 percent while the share of children able to recognise three-digit numbers increased from 23 per cent to 41 per cent.

**After 25 days of CAMaL intervention in Akwa Ibom, Literacy:**

- the share of children at beginner level dropped from 36 percent to 9 percent
- the share of children competent at story level increased from 17 percent to 25 percent

**Numeracy:**

- the share of children who were only able to recognise one-digit numbers reduced from 3 percent to 0 percent while the share of children able to recognise three-digit numbers increased from 54 percent to 86 percent

These results have the potential to change the landscape of education quality and access in Nigeria, especially because the CAMaL model can be implemented as an in-school intervention or as an out-of-school intervention such as a learning camp for remedial learning or a holiday camp. Government as well as other stakeholders therefore need to begin to explore how elements of the CAMaL approach can be adopted and scaled to benefit all children.

### Mavis Education Model™ (MEM)

The Mavis Education Model™, which is based on the Mavis Talking Books™ (MTB) technology provides improved learning outcomes (especially in literacy & numeracy) for children in a language they understand. A key feature of the MTB is that they act as the teacher's assistant. They provide ready-made, high quality curriculum-based lessons for teachers thus reducing the burden on teachers, time wastage in the classroom, and teacher absenteeism. The MTB allows children to engage directly with learning materials in a learner-centred, small group participatory based model.

The MTB has two components which work together; the Mavis Pen™ and the Mavis Book™. When used together, the Mavis Pen™ can narrate the lessons as presented in the books as well as tell stories, play games and sing songs for the user. This innovative use of technology and mother tongue

<sup>6</sup> LEARNigeria 2017 Survey Preliminary Results

<sup>7</sup> The LEARNigeria assessment and advocacy programme, as well as the LEARNigeria remedial programme are implemented by The Education Partnership (TEP) Centre

instruction to enhance learning has been deployed to reach thousands of children nationwide through development partner and government funded literacy and numeracy programs for in-school and out-of-school children in grades one to four. End Line test results from MEM deployments showed improvements of 24% in Mathematics and 27% in English for grades one to three children.

The Talking Books™ have more than a few relative advantages over traditional tablet-based educational technology; i) The Mavis Talking Books are locally relevant and extremely user friendly. Teachers in public and low costs schools are typically not as technology savvy as tablet, smartphone or computer-based solutions require. The Talking Books are significantly easier to use – as simple as pen and paper; ii) The Mavis Talking Books work offline – they do not require, and cannot connect to the Internet. It is therefore safer for children and easy to transfer or replicate in different contexts; and the Mavis Pen™ only consumes only about 12% of the power that tablets require and it can be charged with a cheaper portable solar kit where electric power is not available; iii) The pen uses audio splitters that are connected to the pen so the learners can share one talking book, a cost-effective method of learning. These advantages have helped governments, development partners, NGOs, embassies, corporate bodies which have partnered with Mavis Computel to provide high quality basic education at a fraction of the cost.

### Why we need to scale up education innovations

The interventions highlighted in this paper are two out of many that have shown proof of concept and have the potential to improve learning outcomes for children (in-school and out-of-school), and maximise opportunities for all children, regardless of their circumstances or location. Stakeholders, including researchers and programme developers, need to become familiar with which specific factors support the scale of these interventions beyond the proof-of-concept phase. Time, energy and resources need to be committed to what the Millions Learning report calls, “funding the middle phase” i.e. the gap in between when an idea is tested and proven at pilot level, and the widespread adoption of the solution.

If Nigeria is to make her education system more inclusive, education innovations should be designed jointly with members of - and for - the system that is supposed to implement them on a large scale. If the system lacks the infrastructure or capacity to implement the new approach, then one must test how to build that capacity as part of the intervention and consider this a key component of what needs to be scaled up.

### REFERENCES

Ucheaga, C. (2018) Mavis Education Model. Retrieved on (July 27, 2019) from <http://www.maviseducation.com>

What is teaching at the right level (2019). Retrieved on (July 27, 2019) from <https://www.teachingattherightlevel.org/>