sQuid

Driving Literacy and Digital Literacy

Lessons from the iMlango programme in Kenya - Summary

iMlango

imlango.com/whitepaper

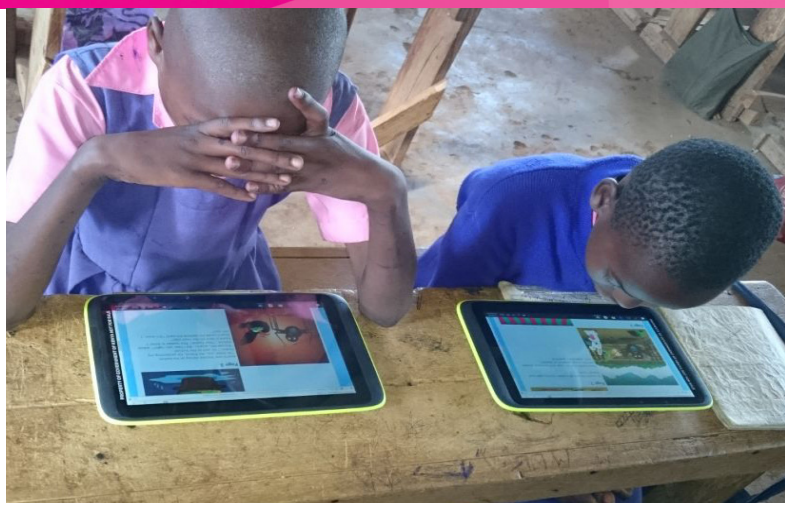
Executive summary

This document is a summary of our recently released white paper: Driving Literacy and Digital Literacy - Lessons from the iMlango programme in Kenya, written by lead author, Rabasa Onyango, and co-author Adam Smith.

The white paper discusses the challenges and findings in delivering a large-scale literacy initiative enabled by online digital tools in Kenyan primary schools in marginalised settings. This whole-school initiative was part of the award-winning iMlango programme which in turn was part of the Girls' Education Challenge.

In the white paper, we consider the body of evidence from our programme in exploring the linkage between literacy and digital literacy and the importance these have in preparing children for a digital future, and we make the case for new thinking around the online digital white space to help drive forward improved literacy outcomes. We discuss our findings of what works at the school, teacher, pupil and parent level, and make recommendations on moving forward with online literacy and digital literacy programmes in marginalised settings.

In the paper we find strong indications that online platforms, when well-supported at school and teacher level, make positive impact on the literacy outcomes for children.



We make the case that traditional evaluation mechanisms can be set aside when looking for evidence and justification for these tools, and we recommend that a policy of resolute forward progress be adopted, with a focus now on how best to build on the positive steps that online digital education tools enable.

We demonstrate the willingness of teachers to adopt new in-classroom pedagogical practises that yield improved literacy results, and we recommend a shift towards using digital tools (including smartphones) to drive teacher capacity building.

Authors

Lead author **Rabasa Onyango** holds a Bachelor of Education from the University of Nairobi, a Master of Education from Masinde Muliro University of Science and Technology, and is a current PhD candidate in Education Communication Technology and Curriculum Studies at Maseno University.

Co-author **Adam Smith** is the Founder and Chief Executive of sQuid, a specialist in digital platforms for the education sector. He was the co-founder of the iMlango programme.

iMlango and the Girls' Education Challenge

As a GEC sponsored programme, our emphasis was very much on understanding how to deliver lasting positive change for girls. Our approach was whole school in implementing the digital tools and gaining engagement from teachers, and always with a focus on girls. This same approach was used in addressing the literacy and digital literacy components of the iMlango initiative. We ensured strong emphasis throughout on the girls by encouraging equality in the classroom from our literacy teachers, equal access to all digital tools, and emphasis on child clubs for girls. In developing our white paper, we have concentrated more on the whole school and whole community challenges of successful implementation of digital education tools than on the relative impact on girls vs boys, but for each of our findings, it should be stressed that an emphasis on girls should be ever-present, seeking to ensure conscious orientation to the needs of the girl child, and avoiding defaults that might favour boys above girls. You can find out more about iMlango in the context of the Girls' Education Challenge at **www.imlango.com/** and on the GEC website here: **https://girlseducationchallenge.org/projects/project/imlango/**

Introduction

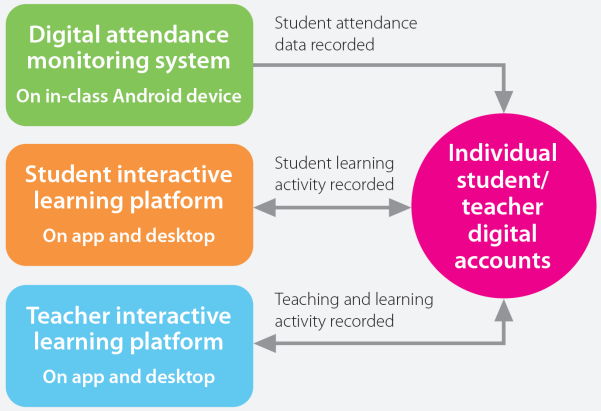
About iMlango

iMlango set out to improve learning outcomes in literacy and numeracy with a whole-school online digital programme leveraging infrastructure, education services and content.

Over seven years iMlango worked with more than 200 schools, supporting over 180,000 children at any one-time, and delivered digital resources including broadband internet, in-school computer devices (labs and whole class teaching) and the iMlango digital learning platform comprising attendance monitoring, digital content in literacy, an algorithmic maths learning tool, and other subject specific content.

iMlango was fully supported with a talented field team and worked closely with the Ministry of Education in the four counties of Kilifi, Kajiado, Makueni and Uasin Gishu, where it operated in mainly rural, and always marginalised settings.

sQuid's Learning Management System deployed in iMlango included:



sQuid's Learning Management System was used in over 200 schools to serve 180,000 students and help build teacher capacity

Our first observations

We found that in most cases, schools and their communities had a genuine desire to embrace digital services. Sometimes, head teachers were less enthusiastic, and we observed that this was often due to their own lack of digital skills.

We assembled a variety of digital learning content from different parties to deliver a rich resource of online learning material. The task of helping teachers to understand and work through how to use the tools was to become one of the most significant iMlango challenges and an area of great success. We always found children ready and willing, enthusiastic, and wanting to learn and we were able to leverage this enthusiasm when faced with the Covid challenge, which left so many children at home when the pandemic struck.

Working with teachers and school stakeholders

Adapting iMlango's literacy strategy

The programme was intensive in terms of teacher focused support, but without this intensity, iMlango ran the risk that literacy improvement might not be achieved, with the digital assets going unused. In other words, we might be consigning children to a further disadvantage – knowing that digital assets were in sight but prevented from learning about and using them.

Building good outcome-oriented action plans for teachers to use digital tools are essential for success. This took time and required a build-up of trust between teachers and our programme officers.

Building a body of evidence over seven years

As we developed the programme, we encouraged more and more teachers to leverage the literacy tools to improve the way they were teaching, for example: preparing lessons; categorising learners; conducting repeat assessments, and; using the data that we captured to help focus on what was working in the whole class literacy teaching environment. These topics are explored in depth in the white paper.

Over the duration of the programme, we saw a massive shift in the teachers' use of smartphones, especially of WhatsApp, and a shift in the communities where c.40% of households around iMlango schools had access to a smart phone by 2020. With the advent of the Covid pandemic, we were able to leverage this by launching, for the first time, a literacy tool that could be accessed by members of marginalised communities via their smartphones. We feel the early-stage learnings from this were very positive, not so much in terms of scale of adoption as understanding the barriers to adoption and how to overcome them.

As we look back over seven years, we gathered a huge amount of data and qualitative observations in what has arguably been one of the biggest digital education programmes of recent years. Bringing the data and observations together has enabled us to assemble a set of findings and lessons learned, particularly in the context of literacy and digital literacy, and these are discussed in the white paper and summarised in this document.

Key findings

Since 2014, iMlango has been steadily building a library of understanding and experience in addressing education in the context of marginalised settings in Kenya.

Our white paper brings the evidence from our data and observations into a model for good practice.

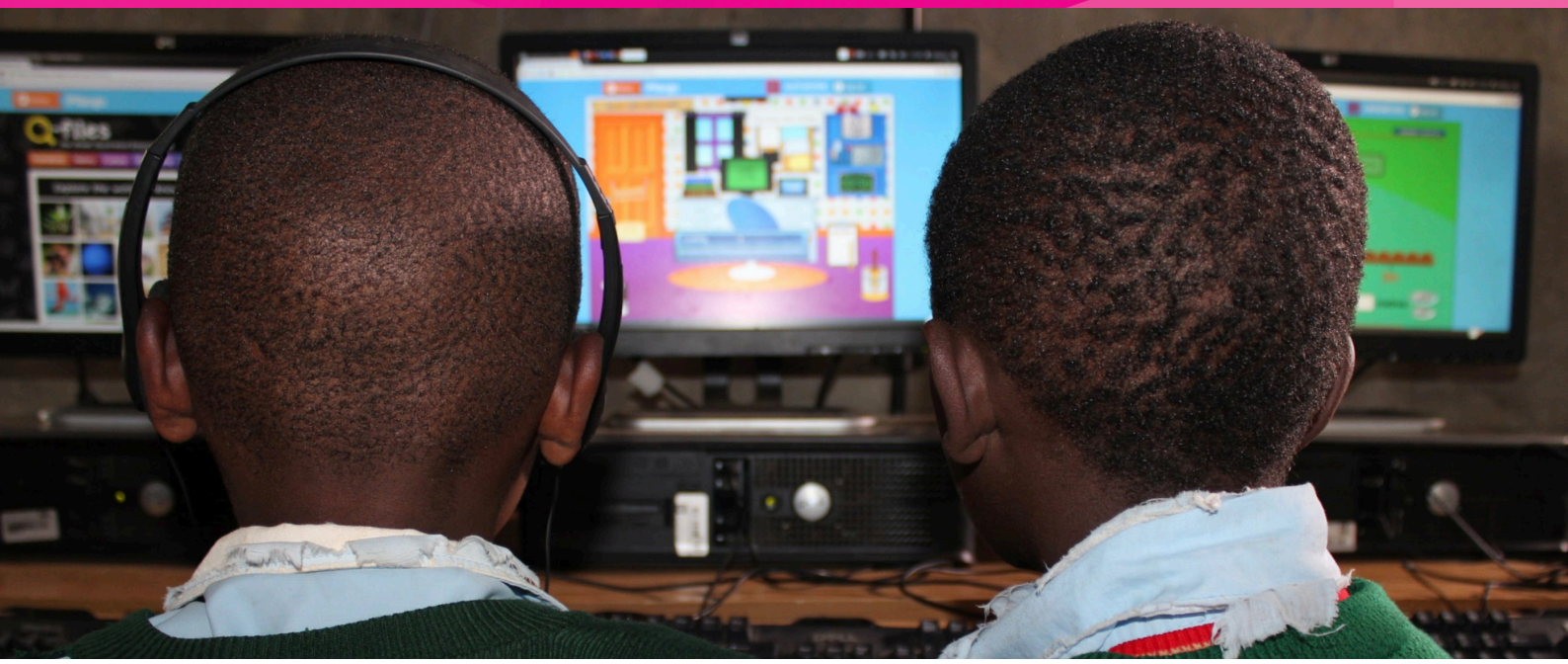
Here we present sQuid's key findings from operating the iMlango programme over the past seven years

1. Teachers' own digital devices are creating an accessible network and have the potential to become a tool for teaching improvement activities. 60% of teachers surveyed by sQuid reported that they received programme support via WhatsApp.

2. Teachers can make the shift to using online resources in whole class literacy settings. 88% of teachers surveyed rated the content and resources on the iMlango Learning Platform as 'Very helpful'. A progressive approach is needed with a variety of resources available and supported by continual tracking and encouragement of teachers to embrace the new tools and the unfamiliar.

3. In marginalised school environments, the process of teachers engaging with digital tools can be slow. Progress can be achieved with a focus on small steps, enabling teachers to engage at an appropriate pace. Capacity-building might best be tailored to the different task levels, avoiding a one size fits all approach. Teachers may benefit from a more accessible micro-steps capacity building tool tailored to this approach.

Key findings contd.



4 Parents will engage in literacy learning for their children in marginalised settings. There is enough evidence from our preliminary work to suggest schools should be encouraged and supported to create this important bridge to at-home learning. The digital network of smartphones is growing (our data indicated that c.40% of households in iMlango's marginalised communities had access to a smart phone), and that asset will continue to grow. New innovative approaches are needed to take advantage of this in a literacy learning context, whilst continuing to support non-digital initiatives for those who do not have access.

5 iMlango established a pilot pathway for at-home literacy learning using a digital tool, in marginalised environments. The issues are now clearer, and the opportunity is significant. A white space is fast emerging, created by parental smartphone access, and we advocate building on our early findings to create initiatives that will create a real contribution to the literacy outcomes of children in these settings.

6 iMlango can point to clear positive trends in literacy improvement through its data, supported by qualitative observations, such as a 20% improvement in oral passage reading ability when compared to the baseline rate. These data trends alone do not make the case for digital platforms but add to the body of evidence from the programme that a collective positive momentum towards literacy and digital literacy improvement has begun.

7 We identified 5 key but surmountable barriers to making significant literacy and digital literacy progress in schools and recommend that these be carefully considered in designing future programmes. The barriers are:

- Lack of a whole school system including the local community
- Disconnect between curriculum demands and the need for 21st century teaching and learning skills
- Quality and range of teacher pre-service training
- Limited ability of teachers to use data to assist teaching strategies in large classes
- Disconnect between education theory, policy, and practice

Lessons learned

From the findings we discuss in the white paper, we present below the six important lessons we learned and which we recommend be taken forward by others as we work together to improve quality of teaching, learning of literacy and digital literacy.

1. **Embrace the digital white space**
   We advocate decision-makers adopt a new mind-set in the digital education white space, seeking to embrace positive steps and constantly looking to improve through being open to digital innovation. We encourage policy makers to partner with digital players, and together seek rapid outcome led change in enabling children to flourish in literacy and digital literacy.

2. **Allow good content to emerge in new digital formats**
   Ensure alignment of content with curriculum, but also allow teachers and students to explore and experience new ideas that may become transformative.

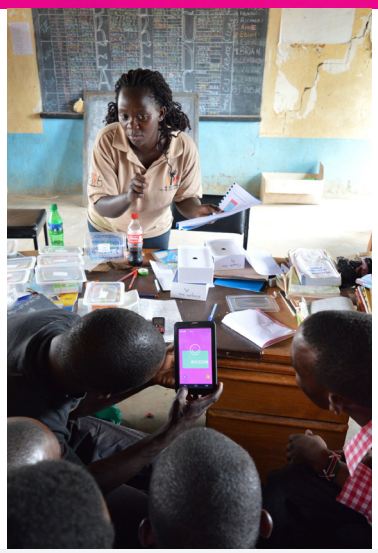
3. **Access**
   Adopting digital formats needs flexibility within the school timetable and allow for set-up time in lesson planning. Where computer labs are available, ensure schools maximise the opportunity of students to learn, through school clubs, etc. Encourage use of ever-growing smartphone networks to enhance the teaching and learning experience.

4. **Teacher-centric thinking**
   Actively manage capacity building amongst teachers in use of digital tools, with comprehensive pre-service and in-service modules. Implement them in digital formats, leveraging e.g., smartphones, to normalise digital thinking in the teaching environment. Support this with school-level mentoring and review, and encourage teachers to participate in advancement of learning tools – what works, what does not work, etc.

5. **Adopt data at the class level**
   Online digital platforms provide a wealth of data for a teacher and a school. Distributing information to help teachers focus on learner groups for literacy and other subjects can rapidly improve literacy learning amongst learners.

6. **Children will embrace digital tools**
   We strongly advocate policy to provide opportunity in marginalised settings to further help children build their digital literacy through in-school and out-of-school digital tools. We should do everything possible to encourage their participation.

sQuid's EdTech solutions for developing countries



sQuid is a forward-thinking technology company that provides digital transaction and educational development services in the UK and Africa

We deliver smart digital solutions harnessing the power of our core Learning Management System to help improve learning outcomes. We process hundreds of thousands of transactions and sessions each day, across multiple markets, in e-learning, attendance, education payments and community payments.

Here at sQuid we also bring a unique combination of talent – our in-house development team works closely with our local field teams to understand technology requirements, bring them to life and then to support these services.

Our Learning Management System transforms education delivery, and our mission is to create great services that improve learning outcomes and empower the communities that we work in.

sQuid's Learning Management System services include:

Digital attendance monitoring system providing real-time data and a better understanding of the drivers of student attendance

Interactive education platform for whole class learning supporting literacy development in classes with a very high number of students

App-based teacher development programmes delivering online CPD programmes to improve teacher capacity in teaching literacy or other subjects

Digital payments system enabling school payments and the distribution of financial assistance to parents of students or other members of the community

Contact **education@squidcard.com** to find out more about our EdTech solutions for developing countries

sQuid iMlango

Acknowledgement

Through the duration of this programme, as well as having the support of the Girls' Education Challenge, we are grateful for the support and successful co-working of our partner organisations including Avanti Communications, Whizz Education, Camara Education, the schools, teachers, local communities, and above all the Ministry of Education.

For more information or to download the full iMlango White Paper, please go to **imlango.com/whitepaper**

For more information on sQuid and our EdTech solutions for developing countries, please go to **squidcard.com**