## **SAMI Digital Communities Initiative**



# What's been happening?

In August 2016, a set of 20 tablets and accessories were purchased and delivered to the Kitale region of Kenya.



They were first used for a week-long maths camp, helping students to explore and be inspired by ideas around programming, problem-solving and big-data.



And for first time we were able to run a maths camp without the need for computer labs or electricity :-)



We could even run sessions outside!

These students were collecting data to analyse related to varieties of crops grown locally.





## We've also now taken the maths camp on the road!



2 further camps have been held at the LEWA conservancy. More are planned for the rest of the year.

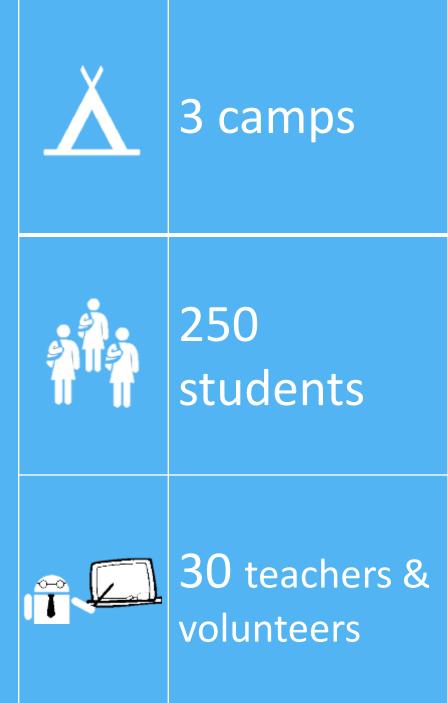




### **Quotes and Figures:**

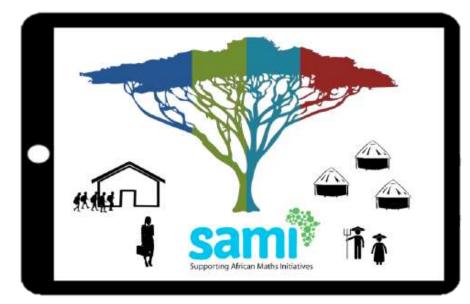
The geogebra session and computer programming was interested interesting. I learnt to make an app from Using Laptop which I renjoyed most Thankyou for teaching us that.

> ""What I enjoyed most was the programming session. I used tablets to play blocky games and managed to reach level nine even though it needed thinking"



Following the August maths camp, the DCI project had its **official launch**.

The goal was simple: **to use technology for improving livelihoods**. Initiatives were broadly spread across 3 areas





# Work with schools



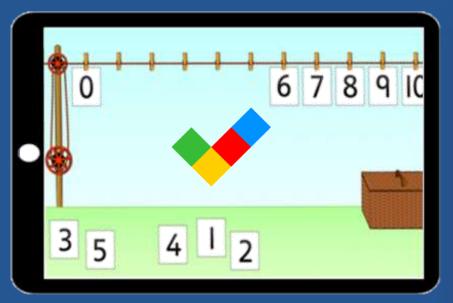
# We initially started working with two local schools, one primary and one secondary.



Wekhonye Primary School 42% average maths grade Wekhonye Secondary School 36% average maths grade Local interns Mike and Patrick have been visiting daily to help the teachers and students access the devices.



We've been using a number of really great apps, including a close collaboration with project oneBillion, a primary maths app with an excellent proven track record.



#### NEWS

Iome Video World UK Business Tech Science Magazine Entertainment & Art:

Technology

### Malawi app 'teaches UK pupils 18 months of maths in six weeks'

By Spencer Kelly BBC Click presenter

6 September 2014 Technology

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#### frontiers in Psychology

ORIGINAL RESEARCH published: 23 April 2015 doi: 10.3389//psyg.2015.00485

#### Development of early mathematical skills with a tablet intervention: a randomized control trial in Malawi

Nicola J. Pitchford\*

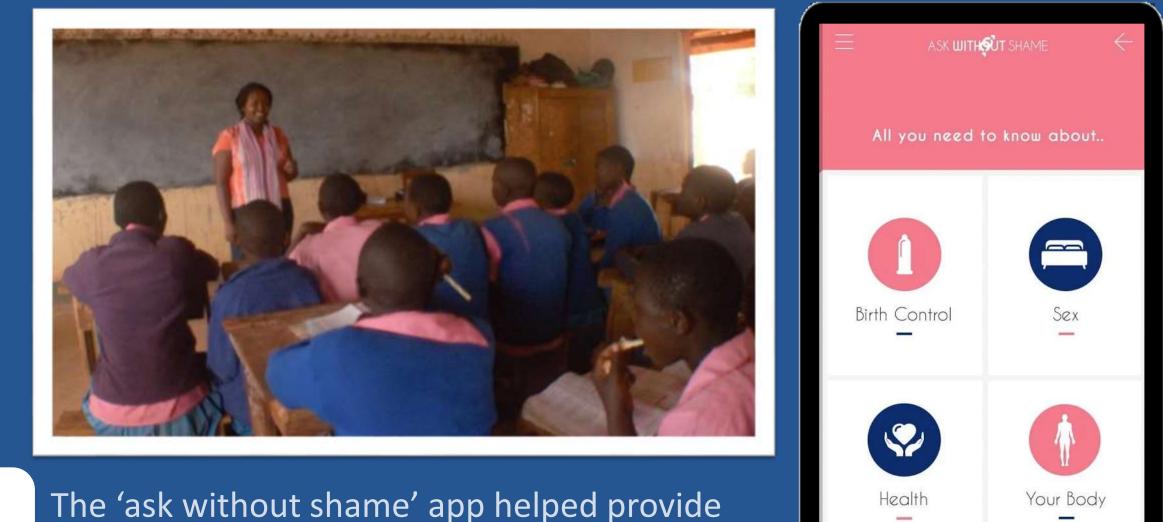
School of Psychology, University of Nottingham, Nottingham, UK

Evaluation of educational interventions is necessary prior to wide-scale rollout. Yet very few rigorous studies have been conducted on the effectiveness of tablet-based interventions, especially in the early years and in developing countries. This study reports a randomized control trial to evaluate the effectiveness of a tablet intervention for supporting the development of early mathematical skills in primary school children in Malawi. A total sample of 318 children, spanning Standards 1–3, attending a medium-



We've also been able to provide access to over 200GB worth of excellent content via a RACHEL Plus server unit.

Volunteers Cabrine and Liz also ran workshops for 58 girls to discuss gender and sexual health issues.



The 'ask without shame' app helped provide information to issues rarely discussed.

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### **Quotes and Figures:**

"Our pupils have not only started to like Maths, but they have also started to like school. Two pupils arrived today to ask for positions to be in our school. We are foreseeing a scenario in January whereby new admissions will increase further due to this program." Edwin Wafula Deputy Head teacher





80 visits

5000+

student learning hours

# Work with agriculture



The tablets have been used to help in community workshops for farmers.



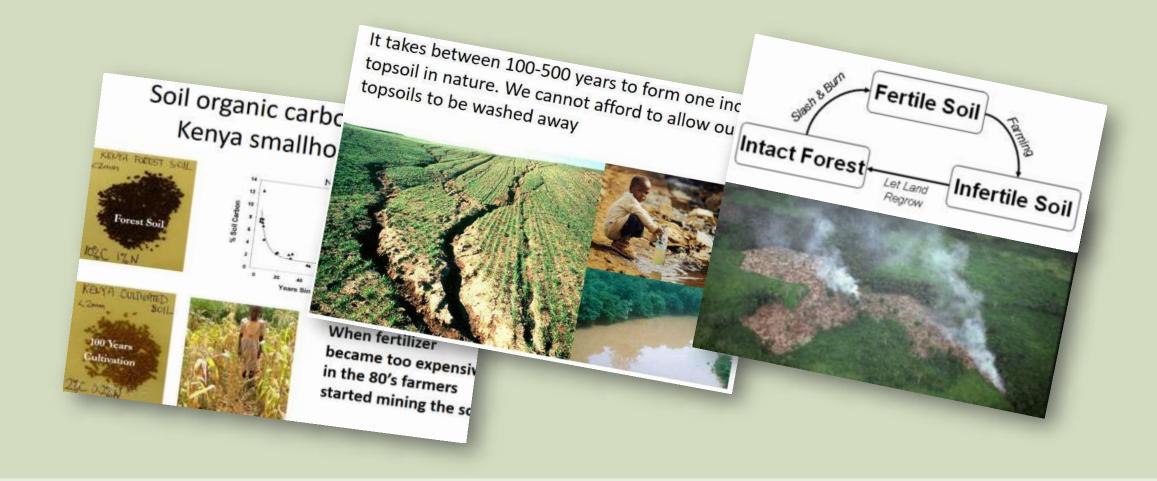
International experts have been helping to train local staff, and together they have customised and loaded the tablets with lots of informative documents and videos.





Striga, or 'witchweed' can destroy up to 95% of a farmer's crop, causing annual losses of **\$7Bn** across Africa.

### So far a total of 12 workshops have been held with more planned. Topics have included pests, diseases, soil health and erosion.



Each workshop provides information relevant to the **local context** for immediate use by the farmers. Word of them has been spreading fast and now there are up to **150 farmers** attending each.

# Work with enterprising women



### We have started running regular workshops to support local women in the community.



YouTube videos have been the primary source of information, helping to showcase local talent and explain ideas around finance and marketing.



The videos have provided a deeper insight into some of the current local industries, as well as providing inspiration for future possibilities.

# The team also made a trip to Mombasa to learn from the Camilla and Holly, founders of 'The Basket Room'.



The Weavers ~

Home

Coastal Region Kenya: Sisal Baskets





Style Inspiration











The Basket Room identifies talented weavers from across Africa, and helps to provide access to international markets.

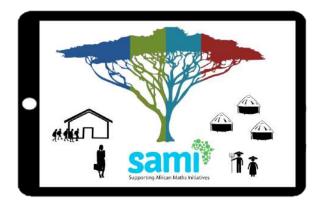
An incredible amount has happened since August, and we are highly excited to keep moving forward. We now have **60 tablets** on the ground, and an extended range of activities planned including:

1	Schools	Agriculture		Enterprising Women
•	A formal research trial with the University of Nottingham to evaluate the impact of tablets with primary school learners.	<ul> <li>Explore uses of tablets to help researchers collecting data on crop diversity and soils.</li> </ul>	•	Student internships for local undergraduates to gain work experience.
•	A visit from the government Ministry of Education to showcase the project.	<ul> <li>Building local capacity to produce short videos and</li> </ul>	•	Explore ways to provide access to international markets for locally
•	Pilot trials for new and emerging apps.	animations for farmers.		produced arts and crafts.
•	Lots more visits to schools!	<ul> <li>Further community farmer workshops.</li> </ul>	•	Specific financial literacy training around savings and

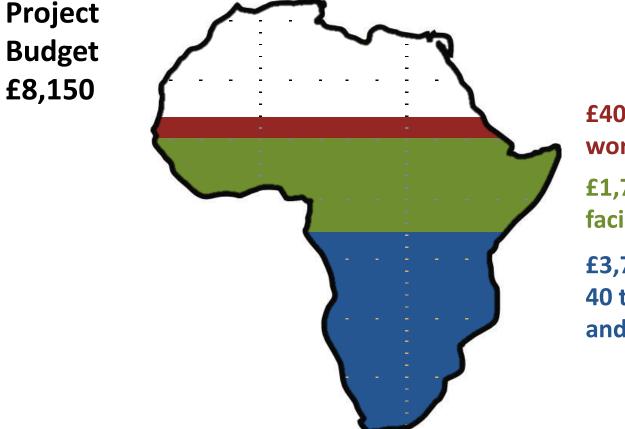
loans.

SAMI will also be running more fundraising activities to help continue the project into next year.

As always, we work to ensure any money raised is put to clear, direct use. Here is an overview of the costs so far:



**Digital Communities Initiative** 



£400 workshops and events £1,760 facilitation and transport £3,795 40 tablets\*, accessories, and operating expenses

\*A second set of 20 tablets were delivered in January. We also received an additional 20 tablets from in-kind donations and matched funding

## But for now all that there is left to say is...

# Thank you!

From all of the team in Kenya and the UK we would like to extend a huge thanks to everybody who has made this work possible.

If you would like any more information about the DCI project or any other initiatives, please feel free to get in touch with us at:



Supporting African Maths Initiatives



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