

Flying Colors

Blended learning in crisis-affected contexts: what have we learned so far?

Flying Colors is a new program that supports socio-emotional and foundational learning, enabled by technology and project-based learning. With support from the LEGO Foundation, it is being jointly developed and implemented by Hopelink Action Foundation Uganda, Learning Equality, and Amal Alliance.

The program brings together Learning Equality's Kolibri, an offline-first digital learning platform designed to enable student-centered and differentiated learning without the need for Internet, with Amal Alliance's Colors of Kindness, a socio-emotional curriculum developed to support out of school children in crisis contexts. Flying Colors blends these approaches within a playful learning model.

In 2022/23, we piloted Flying Colors in 4 schools in Palabek Refugee Settlement in Northern Uganda, with a focus on primary school age out-of-school learners. 714 refugee and host community learners were enrolled in one of two consecutive 12-week cohorts, enabling learning and an iterative approach to set up Flying Colors for future replication and scale.



Interested in learning more? Contact us at implementations@learningequality.org

Delivery to date

To pilot Flying Colors, 4 schools with high learner drop out rates were identified and community mobilization was carried out to enroll learners into the program. We equipped playful learning spaces with hardware, mats, learning materials and games. We supported teachers through professional development, lesson observations and guided conversations, and engaged the local community, partners and national and local government in meetings and learner showcase events.

PALABEK REFUGEE
SETTLEMENT

UGANDA



HARDWARE

72 tablets
4 servers and **4** charging stations
6 solar panels and **3** batteries



CURRICULUM

48 lesson plans
3 lesson handbooks per teacher
1000+ Kolibri video and audio lessons



TRAINING

13 training workshops
11 trained teachers
4 trained head teachers



LEARNERS

714 P3 and P4 level learners enrolled
588 learners graduated
2 learner showcase events



COMMUNITY

676 community members engaged
20 government reps. engaged



LEARNING

8 pre-post teacher surveys
252 matched pre-post learner surveys
26 lesson observations
15 interviews and focus groups

Results: learners



FOUNDATIONAL LITERACY

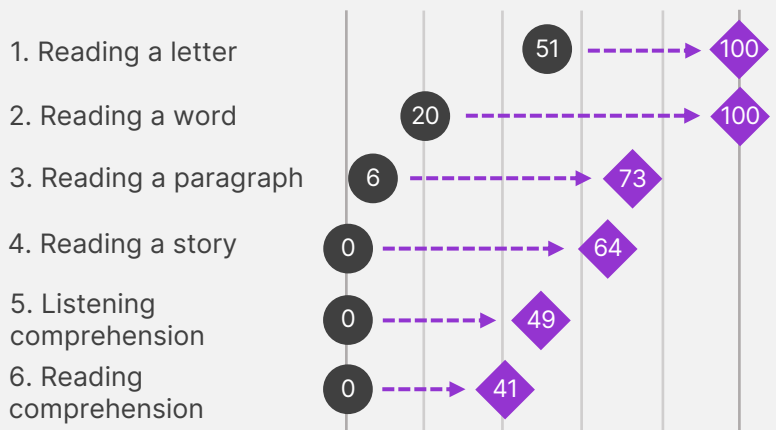
“ I always love to come and use the tablets. I have learned English and I can now read words.

Learner



GAPS AND NEEDS Learners’ literacy levels were low. Many had been out of school for several years due to Covid-19 and displacement, and were not familiar with English (the language of instruction).

RESULTS There was a significant* improvement in learners’ English literacy. Though only half could read a word at baseline, by the end of the program all learners could read a word and 73% could read a paragraph.



Key. % of learners who answered correctly at:

● Baseline

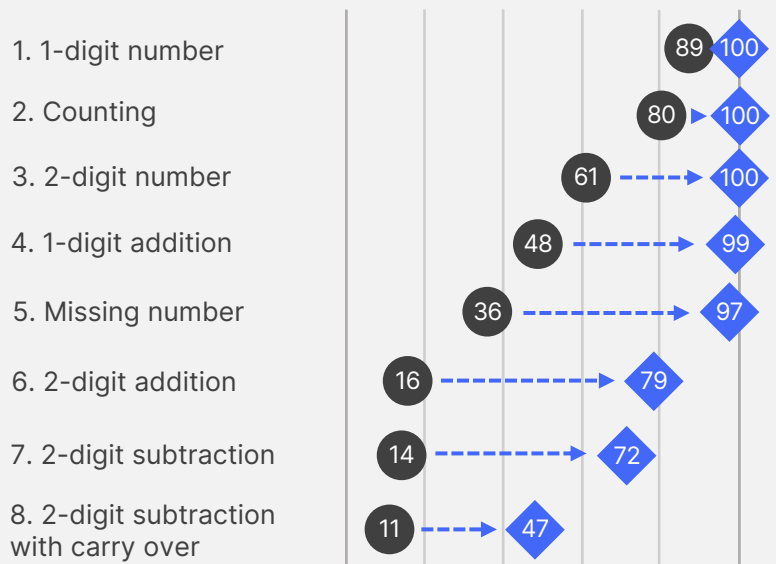
◆ Endline

FOUNDATIONAL NUMERACY



GAPS AND NEEDS Learners’ numeracy levels varied widely within schools. This indicated the need for differentiated and tailored content, which Kolibri and the Flying Colors curriculum enabled.

RESULTS There was a significant* improvement in numeracy. At endline all learners could count and the majority could perform 1-digit and 2-digit addition and subtraction.



* The difference in the mean score at baseline and endline was statistically significant at a 95% confidence level, with a large effect size.

Results: learners



SOCIAL & EMOTIONAL SKILLS

A positive correlation was found between the number of Kolibri lessons facilitated at a school and the average increase in scores, for literacy, numeracy and social and emotional learning, indicating the holistic value of the curriculum and teacher engagement.

GAPS AND NEEDS Learners were confident in their ability to connect to others but less than half agreed they notice their feelings or have dreams for the future.

RESULTS Socio-emotional skills improved across all questions. Notably, more learners were confident in their ability to notice their feelings, use their imagination and plan for the future. Teachers and caregivers commented on seeing improvements in learners' self-confidence and self-management of emotions.



Key. % of learners who agreed with the statement at:

● Baseline ◆ Endline

RE-ENROLLMENT

“ Whenever we come to school, we learn more and go back with new ideas ... it motivates us to always come to school.

Learner

”

RESULTS Of the 330 learners who completed the first cohort, 322 enrolled back into mainstream primary school after the program. We do not yet have data on re-enrollment for Cohort 2 learners, but 99% said they enjoy being in school and 91% plan to continue their studies and complete primary school.



Results: teachers

DIGITAL SKILLS & CONFIDENCE

GAPS AND NEEDS Teachers had not used technology in the classroom before, and none said they were 'very comfortable' incorporating it into their lessons. They needed time and ongoing support and feedback to embed technology in their teaching.

RESULTS Teachers successfully facilitated blended learning in the classroom, with improvements observed between the two cohorts. 75% of teachers said they were 'very comfortable' incorporating technology.

PROFESSIONAL DEVELOPMENT

GAPS AND NEEDS Not all teachers were familiar with project-based and playful learning approaches, and were unsure how to support learners' emotional needs or its value. They needed support to understand and embed these concepts.

RESULTS At endline, 88% of teachers felt comfortable integrating playful learning, and all teachers felt they could help learners identify their emotions. Teachers commented on the particular value of playful learning for refugee learners.

“ It has changed my teaching methods ... I used not to consider the emotions of my learners when I was conducting my lesson, but with social and emotional learning, I have learned a lot and am in a position to identify the learners' interest during my lesson. It has improved my teaching.

Teacher

”

What have we learned?

- Teacher engagement and motivation is critical to program success and learning outcomes, and is enabled through tailored support and regular observations and feedback.
- The holistic program can effectively restore student confidence and enjoyment at school, as well as boost learning outcomes. Learners and the community take pride in their participation.
- Classrooms in this context often bring together learners at different ability levels. Differentiated learning is important and is enabled by Kolibri and the curriculum design, but teachers need intensive and ongoing support to utilize the tools available. We are now building this into teacher training at an earlier point in the program design.
- There was significant improvement in implementation between the two cohorts as it took time to upskill the implementation team, who had not deployed an edtech solution before. Ultimately, this led to increased confidence across the team.

What's next?

- We are on a pathway to sustainability in Palabek, with sustained hardware maintenance and usage, retained implementation staff, and strong government and community buy-in.
- We're seeking funding to expand the program to new contexts and partners, which will allow us to continue refining the program design, training approach, product features, and curriculum to further deepen impact.
- As part of this broader scaling plan, we are incorporating our learnings and research on promising practices into the release of our open access Kolibri PBL Training Pack and PBL Curriculum.

