Beyond School Walls: Inspiration from Disruption

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BEYOND SCHOOL WALLS: INSPIRATION FROM DISRUPTION

When schools around the world were forced to close their doors in March 2020, for many students, learning stopped. It is a sobering realization that our education systems globally are vulnerable to shocks like the COVID-19 pandemic and that while we often repeat the adage: "learning can happen, everywhere", it remains almost completely dependent on the in-person interaction of students and teachers within the traditional school structures. When we question the resilience of our education system, it is worth also considering the many limitations prior to the current crisis - as we were unable to accommodate 263 million out of school children and youth. The traditional model of schooling that we have accepted and perpetuated does not account for the unique barriers, nor does it fit the contexts of many of our youth and children.

Over the past several years, the world faced a wave of crises that have interrupted education and further slowed down the progress made towards achieving SDG4 and leaving no one behind. After the refugee crisis in 2011, UNHCR reported that enrollment rates of refugees across all levels remain significantly lower compared to their peers globally[1]. However, the pandemic forced the entire world to react to reduce the impact of these disruptions. In response, governments, and organizations around the world explored and implemented solutions to ensure that education continues.

Our priority at the Education Above All Foundation (EAA) has been to find ways to ensure the continuity of learning for all children, especially those in underserved and marginalized communities. Those that can access online-learning have quickly adapted to distance-learning solutions, but for the majority of global households on the other side of the digital divide, we are rapidly designing new stopgap learning solutions. The majority of students worldwide have been left without distance-learning infrastructure and relevant and recognized digital content. As a result, we have had to think deeply about designing multiple distance learning and community-based learning solutions that can help these children continue their education by harnessing the power of resources – both human and material – that already exist in their lives. EAA has designed the Internet Free Education Resource Bank (IFERB) and the Activity Bank for Disabilities (ABD) – both these banks contain project and activity-based resources that are designed for technology-free and low resource homes, where students have to lead their learning.

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[1] *UNHCR. Left Behind: Refugee Education in Crisis.* https://www.unhcr.org/59b696f44.pdf

This pandemic has also been an opportunity for EAA to strategize with empathy as we targeted organizations whose beneficiaries' education have been adversely impacted not just by COVID-19, but also by the circumstances that have rendered them unable to succeed academically, not least of which is the lack of parental support. In our effort to identify organizations that have designed effective solutions to these challenges, we discovered that the COVID-19 pandemic-related school closure was just one incident in a long series of unfortunate events that disrupt the education of many learners. We became more acutely aware of the need for a variety of learning ecosystems that are custom-built for the different circumstances and contexts.

With this in mind, we began profiling innovative organizations and alternative learning systems – all of which were already deeply ingrained into the communities of the learners, designed for their unique contexts and developed to be sustained. This report features 11 case studies of such organizations and initiatives where learning happens in the most marginalized communities regardless of their technological readiness. The report aims to spark inspiration and share the operational details of these initiatives for the benefit of other organizations struggling to understand this area or attempting to develop similar programs targeting learners in challenging contexts. Acknowledging the many spectrums of digital, parental and teacher readiness, stages of learning, content availability, and costs – we have designed a categorization model that is intended to guide the reader to the program most applicable in their context.

We anticipate that organizations working in places of continued school-closures and partial openings find these ideas and practices adaptable to ensure that learning continues. We also sincerely hope that we become intentional about introducing some of these alternate learning models to build a more inclusive, resilient, and community-based model of learning.

ACKNOWLEDGMENTS

Education Above All would like to express special thanks to our knowledge partners:

HundrED for their support in identifying case studies, reviewing and publishing this important report.

We also would like to thank the profiled organizations in this report for their time:

- Amala Education
- Dost Education
- Ek Tara
- iACT
- Luminos Fund
- M-Shule
- Power99 Foundation
- Pratham
- Rising Academy Network
- The First Assalam School
- Zakoura Foundation

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AMALA

In 2016, Amala – formerly known as Sky School, offered short programs in various topics such as peacebuilding, social entrepreneurship, and art and cultural expression. Each short program course consisted of 100 hours of instruction, 60 of which were in-person and 40 hours of online study. Over 300 learners have participated in Amala's courses from 7 countries.

Amala used the short program courses to create the Amala Diploma Program with a mission of using transformative education to create opportunities and inspire positive change in the lives of refugees and their communities. The Amala curriculum was developed in collaboration with United World Colleges (UWC) East Asia along with 140 educators and refugee youth from June 2018 to June 2019. The diploma program was rolled out in Amman, Jordan in June 2020 with 24 students. Amala aims to launch it in Kakuma Camp, Kenya, later in the year.
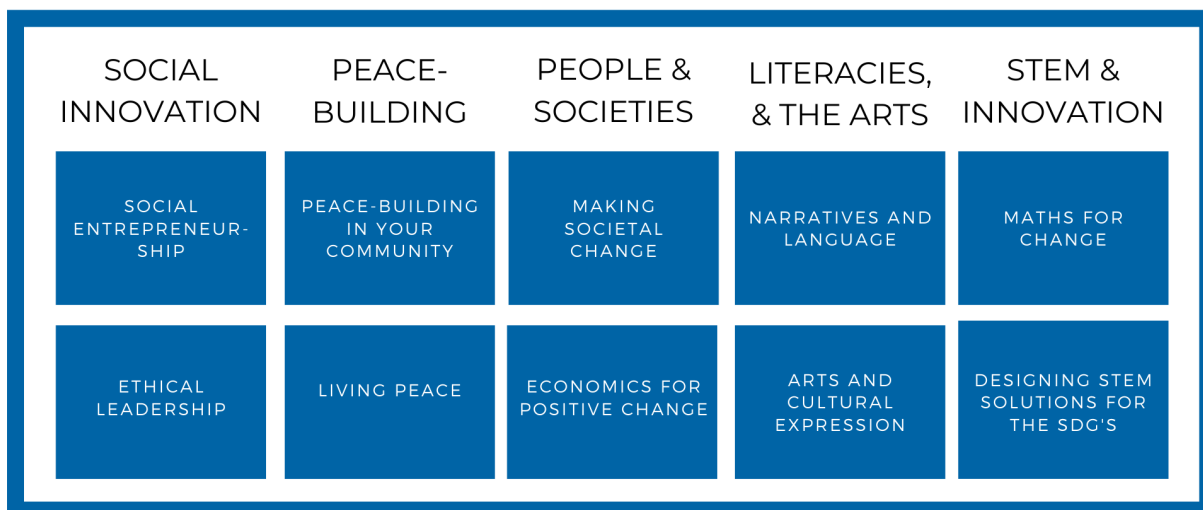
The Amala High School Diploma is the first international high school curriculum designed specifically for young refugees aged between 16 and 25 years old who do not have access to the local education system. The Diploma Programme focuses on innovation and problem-solving, which aim to enable young refugees to make a change in their community and to pursue further opportunities for higher education, work, and entrepreneurship.

For 15 months, students will study 10 Amala courses, which focus on 5 different streams as illustrated below. Students also complete a 'Personal Interest Project' and receive advice on pathways to pursue further education and employment opportunities after graduation. The Amala team is working on the recognition and accreditation of the Diploma in Jordan and beyond to ensure that students can access further opportunities following their studies.

The diploma uses a blended learning model, where students meet in class with trained facilitators several times a week (60% of the program). For the remainder of the program, students access learning materials via an online platform in their own time.

THE AMALA DIPLOMA PROGRAMME

10 courses
1000 hours of learning
Modular structure
Developed in collaboration with UWC South East Asia

SOCIAL INNOVATION	PEACE-BUILDING	PEOPLE & SOCIETIES	LITERACIES, & THE ARTS	STEM & INNOVATION
SOCIAL ENTREPRENEUR-SHIP	PEACE-BUILDING IN YOUR COMMUNITY	MAKING SOCIETAL CHANGE	NARRATIVES AND LANGUAGE	MATHS FOR CHANGE
ETHICAL LEADERSHIP	LIVING PEACE	ECONOMICS FOR POSITIVE CHANGE	ARTS AND CULTURAL EXPRESSION	DESIGNING STEM SOLUTIONS FOR THE SDG'S

SOLUTION

Criteria	Category	Details
Technological Readiness	Intermittent Internet-connectivity	The majority of students don't have access to a smartphone in refugee camps. A few may have access to laptops or computer centers where they can access their program material. In Kakuma camp, mobile internet is usually of poorer quality; hence, unreliable.
Content availability	Yes	Amala curriculum is designed in collaboration with their founding partner school, United World Colleges South East Asia, and has had involvement from educators and refugee youth from around the world. It is designed to be easily adapted to the local curriculum.

Personalization	Yes	The curriculum is developed through a "hackathon" where 12-14 refugee learners, teachers, and matter experts collaborated to create each course. Each course is broken down into weekly lesson plans with activities such as role-play, and discussion points to ensure student engagement. The course leader decides on the specific activities by borrowing open source content such as Khan Academy or YouTube videos.
Interactivity	Yes	These courses are designed to include interactive and engaging activities for students such as discussion points. The teachers are responsible for creating activities. For example, teachers may choose to watch a video and then design discussion questions around that video.
Mode	Blended	The diploma program relied on a blended learning model with 60% in-person classes and 40% of online study. After the pandemic, Amala moved to provide synchronous lessons on Zoom.
Feasibility to replicate		
Time	Medium	Amala, along with the implementing partner, select locations where the diploma will be offered. Amala recruits facilitators who receive a 16-hour facilitator training. Implementation training is also offered for the program coordinator.
Effort	Low	Amala considers legal aspects for refugees and the implementing organization to ensure smooth operation. The organization provides access to the internet for students and, preferably, a better connection for facilitators. Amala offers organizations to join its platform and use its resources.
Money	Low	The cost to replicate the Amala model is low given that the resources are reused. Amala reported that

| | | it pays about 750 USD/month for some of its premises. |

FOLLOW-UP AND IMPLEMENTATION

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	High	Amala works in locations where there is a lack of qualified teachers, especially for refugee populations. The model relies on facilitators who are trained to deliver the curriculum. They initially go through a 16-hour training program followed by ongoing professional development and coaching to develop their facilitation skills.
Availability and ability of parents or caregivers to facilitate effective home-based distance learning	N/A	Given the age group (16 to 25, and older in some cases) of these students, parental involvement is minimal.
Monitoring and evaluation capacities		
Monitor distance learning processes	Yes	The program evaluates the students based on the competencies in the transcript. Students collect evidence of learning and are evaluated based on the application of their learning. Amala works with the Mastery Transcript Consortium to provide Amala graduates with digital transcripts with the 7 core competencies outlined.
Track the access to courses and engagement	Yes	Just like a regular high-school program, students are evaluated regularly for their online and in-person course work.

Assess learning outcomes	Yes	The program is competency-based with 7 core competencies in which they are assessed or self-assessed.
Sustain immediate distance learning responses for achieving long-term goals	Yes	Amala uses a blended learning model; however, the goal was to create an online-only as well as an offline-only model to accommodate students in different circumstances. The pandemic had accelerated this work since it was necessary to migrate the remaining 40% of the in-person learning to Zoom.

IMPLEMENTATION CHALLENGES

Invested Funders

Amala developed the program over a period of 3 years. It was challenging for Amala to convince funders to invest in a long-term outcome. Since the program is 15-months long, funders would have had to wait for 5 years for the first pilot results.

Global Accreditation and Recognition of the Diploma

Amala aims to provide refugees with a recognized high school diploma. The process of accreditation is long and extensive, so they will need a few years to get their diploma accredited.

TAKEAWAY LESSONS

Amala aims to be a scalable program and reach more learners globally. When designing the diplomas, Amala focused on the students and kept them at the center of the development of any program. Amala developed the diploma specifically to the refugee student population, keeping in mind their needs and experiences most of which affect their participation in schools. Their unique circumstances include needing to work, caring for the family, and/or other pressing responsibilities. With a 75% retention rate, the program was created to fit into their lives rather

than the other way around. The diploma does not use the traditional grading system; rather, it offers a unique evaluation system that focuses on agency and competency. Students are required to be actively involved in the curriculum where their lived experience is the base of their evaluation.

ZAKOURA FOUNDATION: ANEER

In 2015, Zakoura initiated "ANEER" – a community-based preschool – to extend quality early years learning into rural areas to uplift the entire community. ANEER, which means the source of light in the Amazigh language, offers children between the ages of 4 to 6 years old living in rural areas a free and high-quality Early Childhood Education (ECE). The model aims to create the most favorable conditions for successful education through the implementation of projects for parents, youth, local associations/NGOs/champions, and local teachers.

The program was started as an initiative to bring preschool education to rural areas; The ANEER model evolved to develop an integrated approach that engages all stakeholders in Early Childhood Education (ECE) in a single community to achieve a better and higher commitment. The model is founded on the international best practices concerning ECE raising awareness of parents and broader community and ensuring on-time registration in primary school (6 years old completed).

In Morocco, 500.000 children are excluded from preschool every year. Only 15.6% of children are preschoolers in public education. In rural areas, only 47% of children and 39% of girls have access to preschool. Due to low national budgets and high levels of poverty, thousands of children don't have access to good quality education.

Due to strategic partnerships with the Moroccan Ministry of National Education and The National Initiative for Human Development (INDH), the Foundation expects an exponential growth per year for community-based preschool program creation. Zakoura has been chosen by the INDH to contribute to generalizing the ECE in Morocco. The INDH committed to financing the first year of partnerships with 300 ANEER preschools and will continue so every year until 2023.

ANEER operates at a national level and is currently present in 8 out of 12 regions of the country. By the end of 2019, ANEER had established 391 preschools benefitting more than 20,000 children.

Parents are sensitized to follow-up on the development of their children according to the milestones and objectives that are explained to them. The strong collaboration between parents and educators helps to adjust the programs when necessary and plan an early intervention for children with specific needs. The ANEER model is a **threefold formula** that includes:

1. Preschool: 2-year program education for children between 4-6 years old

2. Parental education: education dedicated to parents (mainly the mother since she is usually closer to the children and also has more time available for them). Parents are involved through:

   a. Parent committee: Monthly meetings organized with two main objectives: share the progression of their children in education and continuous sensitization.

   b. Parental education: dedicated to parents and the local community, the objective is to create an environment for the children with an aligned- shared philosophy and skills.

3. Capacity reinforcement from a local association that will ensure the long-term life of the program of the ANEER model sustainability. This integrated approach has allowed ANEER to have a better impact on the local population, but also to answer the target population-specific needs better.

SOLUTION

Criteria	Category	Details
Technological Readiness	No technology	ANEER's model advocates for low-tech innovation and human-centered instructional design for pre-primary education. Children attend a physical establishment where they learn from a trained educator.
Content availability	Yes	The teaching material is adapted to the age of the children and is designed so that the facilitator can help students integrate into primary school. All content aligns with the national curriculum.
Personalization	Yes	ANEER's model is sensitive to local cultures and vernacular languages (Amazigh, Hassania, Tamazight, Tachelhit, Darijas, Tarifit). Also, school

		schedules are partially flexible and chosen by parents at their convenience as long as there are: 3 hours of class per day per group; 6 days a week; 11 months a year over 2 years.
Interactivity	Yes	ANEER works with students so they can achieve a specific level of sensory and motor skills, teach them about emotions and expression of emotions, how to communicate well, and how to tune in to school. They work with the students to make sure they are participating enough.
Mode	Synchronous	ANEER is delivered in the classroom.
Feasibility to replicate		
Time	High	To ensure the project's relevancy and sustainability, ZEF devotes a phase to pre-diagnosis focused on qualitative and quantitative research in and around an identified Douar, which means a local village in Moroccan dialect. That first phase completed by the signature of a convention with local authorities to launch a preschool program, ZEF moves on to implement a high-quality program. They also train the educators and assistants before the project and during the project with a 6-day training session monthly to address needs that arise during the project.
Effort	High	Zakoura Foundation identifies the site, develops and equips the school, recruits, and trains the two educators through the Zakoura Academy, welcomes the children, ensures the management and monitoring of the project, and strengthens the capacities of the local association to perpetuate this initiative.
Money	High	Under the program, the cost needed to create and manage each school for 2 years is approximately 32,000 USD. Over this period, the local partners'

		capacities are reinforced to allow them to take over the program through workshops on pedagogical principles, the operational methodology to carry out a preschool program, and the basics of project management. In case a Douar has no NGO or local association, ZEF helps create one during the project.

FOLLOW-UP AND IMPLEMENTATION

Zakoura approaches vulnerable rural communities with preschool needs; one of the requirements for the Foundation to decide to run ANEER in a "douar" – a local village in Moroccan dialect – is the existence of a proximal primary school. Zakoura makes sure that the children that will benefit from the preschool model will be able to continue their education by registering them to a public school once they have finished the model.

The operating process consists of 3 phases:

- the preparation phase includes prospection (in which they select and enroll beneficiaries), recruitment of the 2 educators and their training;

- implementation: preschool program launch, continuous training, parental education & community meet-ups, local association empowerment;

- monitoring and analysis of performance, model enhancement, and recommendations.

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	Low	Educators are trained at the "Zakoura Academy" under the ECE model to be able to ensure the sustainability of the pedagogical program. There is an initial training of 12 days for educators and assistants. Then they train the educators and assistants through a 6-day training session monthly to address needs that arise during the project.

Availability and ability of parents or caregivers to facilitate effective home-based distance learning	High	Parents need to be highly involved in their children's education. To ensure an efficient continuation of the preschool program, the Foundation has enhanced the accompaniment of parents by educators to support ongoing learning. They have monthly parenting classes to help teach them how to help the children as well as to raise awareness of what the children are learning.

BUILDING RESILIENCE

During the COVID-19 outbreak, The Zakoura Foundation has suspended all units, following national guidelines from the government. To ensure education continues, Zakoura has developed alternative solutions to adapt to the current crisis.

Since most of the operations are located in rural areas where there is low internet access, the Foundation has set up a project which focuses on connecting with parents and helping them support learning. Parents prefer telephone calls and WhatsApp groups since they offer the option to interact with the educator. Where possible, Zakoura uses telecommunication tools to facilitate access to education and follows the progress of the beneficiaries.

Long-distance education is difficult since young learners are not independent and responsible. Zakoura has tried to solve this issue by working with the parents, preparing them with calls, and short videos explaining how to supervise and support the children during their homework. The pedagogical team and the educators have thus shown agility and creativity in adapting the activities and games to distance learning for the continuation of the pedagogical program.

Although the ANEER model has not been created as a long-distance project, due to the pandemic, Zakoura has been forced to adapt. As a temporary solution, they are currently using some digital tools, mainly the parents' cell phones, to ensure continued education during the pandemic. This approach led to the production of the video series "Mourabyati fi Bayti" which is available on the Foundation's YouTube and social media channels. The series offers fun educational activities to help children learn skills such as counting, writing and differentiating letters, understanding the 5 senses, and so on.

IMPLEMENTING CHALLENGES

In Morocco, there is a cultural misperception towards preschool education. Parents believe that during preschool, children receive « only » educational knowledge, as they expect their children to learn French and to learn how to write and read. ANEER tries, through parental education and community meet-ups, to create awareness on this matter and to inform and raise awareness about the specifics of Early Childhood Development. In some cases, parents do not appreciate the importance of pre-primary education.

TAKEAWAY LESSONS

For Zakoura's beneficiaries, their remote location puts them at a disadvantage compared to their peers living in cities. The ANEER model helps introduce a community-owned and run school that can be sustained within areas that schools are not available. It ensures that their education is not disrupted due to their location. ANEER works together with the government, local community, and parents to create awareness of the importance of educating a child from a young age, and facilitates this education. This cooperation also aims at preparing the child so that he/she can attend school once they have reached the right age.

Through ANEER, Zakoura creates the right environment to ensure removing barriers to a child's education, leveraging on the strength of a community working together towards a shared goal.

COVID-19 has exacerbated the situation making long-distance education a requirement to ensure the continuation of children's education. By setting up a project dedicated to this purpose, educators used telephone calls and WhatsApp groups to connect with parents to support them in their children's education. Zakoura Foundation has ensured the education of children continued at home during the pandemic. It demonstrates that with this approach, associations can work together with local communities to ensure young children access to quality education.

THE FIRST ASSALAM SCHOOL

The First Assalam school was established in partnership between the Education Above All Foundation (EAA), Ministry of Endowments and Islamic Affairs, and the Ministry of Education and Higher Education. The school provides free education to address the problem of financial barriers and the age and educational gap faced by children of non-Arab communities in Qatar. There are currently 480 children enrolled in the school; these children are between 5 to 15 years old. The majority are between 5 to 7 years old (approximate 150) while the numbers are lower in older age groups. Most of the students are in the classroom that corresponds to their age. However, due to missed education, some students need to be placed in supported classrooms where they receive extra support to get back on track.

Given country-wide school closures in Qatar and the absence of proper distance learning alternatives, each school had to act on its own to deal with the crisis that led to the disruption of education. In an attempt to understand the best way to communicate with the students, the school conducted two kinds of surveys. The first survey was to assess the level of connectivity, and the second survey was to evaluate the percentage of students /parents that have mobile phones with or without WhatsApp.

The insights have been the basis for developing the Work Pack Practice due to a lack of connectivity. The teachers of the school have designed the work packs based on content from the curriculum unit where the students had left off. These packs include high-standard worksheets with their objectives and a feedback section to be filled by the parents or the students. The school prints, packages, and disinfects the work packs before they are sent for delivery.

The survey also helped to identify WhatsApp and regular SMS as reliable tools to improve communication with students and parents using it as a tool for reminders and interaction.

SOLUTION

Criteria	Category	Details
Technological Readiness	Intermittent Internet-connectivity	The First Assalam school has identified that most of the students' parents have access to WhatsApp or at least basic SMS functionality. Assalam relies on the phone to deliver educational instructions and answer doubts.
Content availability	No	Teachers created 2-week work packs for the remaining school year in alignment with the British curriculum.
Personalization	Yes	The curriculum addresses multiple educational subjects. The school tailored educational materials according to the needs of their students.
Interactivity	No	Once the packs are delivered, the teachers send a video clip explaining the content.
Mode	Medium	Students receive physical packs containing education materials. Teachers send video clips via WhatsApp to explain the lessons.
Feasibility to replicate		
Time	Long	The teachers of the school have designed the work packs based on content from the curriculum unit where the students had left off. They prepare 2-week work packs for each wave of delivery.
Effort	High	Specific educational materials needed to be developed for independent student work. Due to COVID-19, there was a big effort since apart from printing and sending the materials on a bus; the school has had to take additional precautions of disinfecting all materials before sending them to

Criteria	Category	Details
		the students and again once the materials were sent back to school.
Money	Low	The school reported minimal costs that include: photocopy costs, training for staff, etc. Transport is the highest cost item in this whole process.

FOLLOW-UP AND IMPLEMENTATION

The school uses the service of the same bus company that was used to pick up students and drop them off during regular days to ensure the delivery of the work packs to all of the students at their homes. A text message is sent to the students or their parents the day before to notify them about the pack delivery, which usually takes place every 2.5-3 weeks. On the day of the delivery, the busses pick the packs up from the school, distribute to the students, and collect the completed packs. If the pack delivery is missed, the parent can come to school and pick up their child's pack. On average, 100-150 packs are distributed per delivery day.

Once the packs have been distributed, the teachers send to the student's parents cellphones a broadcast message in the form of short video clips to provide information on the pack and provide the students with some instructions. The students or their parents interact with their teachers and can always contact him/her via WhatsApp messages (as most of the parents have smartphones) or text message for any clarifications on the content of the work pack or in case they face any problems.

The completed work packs are picked up and returned to the school for correction. These work packs are sanitized and left for three days, to ensure a high level of hygiene and avoid the risk of any infection spread through these packs. After that the teachers check and grade the student's packs, also taking relevant precautions, including using facemasks, gloves, and abiding by the general hygiene protocol provided by the school. The teachers are also instructed to sanitize when they return home.

Criteria	Category	Details
Preparedness of teachers to design	High	Teachers show high readiness in preparing the content and facilitating it to students.

and facilitate learning		
Availability and ability of parents or caregivers to facilitate effective home-based distance learning	Available for guidance but not as an educator	Most parents are available for guidance, however, nearly 35% of them are illiterate. Therefore, some parents will face difficulty assuming the role of the educator for their children.
Monitoring and evaluation capacities		
Monitor distance learning processes	Yes	The Admin team/teachers send messages to all parents before the materials are delivered to ensure that they will be at home to receive the materials.
Track the access to courses and engagement	Yes	Teachers review and correct homework once the materials are sent back to school.
Assess learning outcomes	Yes	The response of the students is monitored, work packs completed by the students are checked and marked by the teachers, and reports with the feedback is handed over to the parents.
Sustain immediate distance learning responses for achieving long-term goals	Yes	The work packs were a temporary solution to address the lack of distance learning solutions in Qatar. The school intends to use Google Classroom to strengthen distance learning.

IMPLEMENTING CHALLENGES

The First Assalam School identified that the lack of technology at the student's homes would impact the school's ability to interact with parents and students. Additionally, the outbreak of COVID-19 has increased these difficulties since the world was not ready to face an epidemic of this magnitude. One of the main challenges for Assalam School has been reaching students at the

lower age range (5-7 years old). Students at this age need to be physically taught; they need more assistance from teachers and parents. Parents' inability to educate their children is considered an ongoing issue by the school. The school has partially solved the problem by sending short videos via WhatsApp with instructions.

TAKEAWAY LESSONS

The First Assalam school is an example of the high level of commitment that educational institutions are putting into place to try to ensure continuity in children's education. Its success in keeping students on track during the academic year was due to the speed of developing materials that were delivered to students' homes. The commitment of the whole community was another factor to the success of the solution, starting from teachers who were available to all students for any potential query; to parents that, despite their low level of literacy, make an effort in keeping their children on track.

The First Assalam school used the pandemic as an opportunity to improve its education delivery to take learning beyond the school building. The pack distribution system was a reactive solution to an unexpected problem. However, the school is exploring ways to integrate distance learning in an effort to avoid future disruptions and design alternative models of education that can help reach learners across all contexts.

DOST EDUCATION

Dost Education is a US-based EdTech nonprofit working in Early Childhood Education in India. Dost Education supports parents, regardless of their literacy level, to increase their child's early learning and development at home. Dost translates evidence-based practices in early childhood development into short and accessible audio content that contains actionable steps parents can take to support their children's development.

In communities where Dost operates, children come from low-income families. They possess limited exposure to resources and opportunities for growth and development during their early years due to the low literacy levels and socioeconomic status of their parents. This places them at a disadvantage in comparison to their peers when they enter primary school and can negatively influence their academic and life outcomes in the long run.

To address this issue, Dost Education developed a 24-week program for parents of children between 3 and 6 years old, covering areas such as cognitive development, socio-emotional skills, and school preparedness. The program's theory of change has been developed in collaboration with the Centre for the Developing Child at Harvard University. It rests on the premise that incorporating small science-backed behavioral nudges and actionable steps into their daily routine will enable parents to support their children's cognitive development, which will, in turn, have a positive impact on both short and long term academic and life outcomes. The program is delivered in Hindi through daily 1-minute podcasts over phone calls ("phonecasts"), which suggest activities that can be done at home to help prepare a child for school. In addition, before the pandemic, Dost Education's part-time workers offered in-person assistance via field visits conducted by volunteers.

In response to the pandemic, Dost Education created a 6-week COVID-19 module to address the stress and anxiety faced by parents as a result of the pandemic and to provide reliable facts and

share hygiene techniques based on WHO recommendations. Parents can also access one-on-one support from a mental health wellness helpline.

Dost Education started with 300 users in 2017 and currently has more than 54,000 users with more than 40,000 users in its COVID-19 module.

SOLUTION

Criteria	Category	Details
Technological Readiness	● Basic Phone/ SMS ● Intermittent Internet-connectivity	Ek Tara uses Phone Calls, SMS and WhatsApp to share lessons and tasks with their students depending on their access to either technology.
Content availability	No	The school uses the IFERB projects created by EAA, which are under a Creative Commons License.
Personalization	Yes	IFERB content is adapted for the context of the community.
Interactivity	Yes	Learners engage with teachers
Mode	Asynchronous	After a scheduled call with the teacher, students perform the tasks required on their own time.
Feasibility to replicate		
Time	Medium	Dost Education has made several iterations of the system they use over the past years. Currently, the organization is working on setting up a remote child assessment model.
Effort	Medium	The effort needed to develop and share content, promote the program in beneficiary communities, and provide one-on-one support is

| Money | Varies | The implementation cost will vary depending on the location of implementation and the number of users. Costs to operate the system include the cost of running the server, hiring a developer to maintain it, and the call air time cost. |

FOLLOW-UP AND IMPLEMENTATION

Enrolling in the program is as simple as a phone call. Parents interested in enrolling in the program have to call a phone number that is published and distributed within target communities. Before the pandemic, Dost Education distributed pamphlets with their volunteers to reach as many parents as possible.

Each week, parents receive four 1-minute phone calls that are focused on a theme or topic such as colors or sequencing. Dost also provides Social and Emotional Learning content and activities that focus on concepts such as understanding and managing emotions, safe/unsafe touch, and building empathy that target both parents and children.

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	N/A	In this program, content is developed and shared with parents by the program staff in collaboration with Harvard University's Center for the Developing Child. Volunteers are trained to promote the program and provide support to parents but do not design content or implement the suggestions directly with children..
Availability and ability of parents or caregivers to facilitate effective home-based distance learning	Yes	Given the nature of the program, parents can assume the role of educators even if they are illiterate owing to the personalized nature of the content shared. On average, parents have completed up to grade 10.

Monitoring and evaluation capacities		
Monitor distance learning processes	Yes	Dost Education conducts surveys via phone calls and touch-tone response quizzes. They conduct baseline and ending surveys with beneficiaries.
Track the access to courses and engagement	Yes	Dost Education has built a robust monitoring and feedback system of automated surveys, phone-, and household parent surveys through which they can track gains in parent knowledge and attitudes about early childhood education. 35% of parents that sign-up for Dost become highly engaged super-users.
Assess learning outcomes	Yes	Dost has combined research and rapid cycle design processes with building a model that fits parent's needs, making it engaging and effective. The program model is developed in collaboration with leading early childhood research labs like the Stanford Center for Education Policy & Analysis and the Harvard Center for the Developing Child. Dost Education found that after 1 month of using Dost, parents who categorize play and stimulation activities as "learning" as opposed to rote memorization (which is the prevailing belief), increased by 70%. Additionally, 60% of parents report changing their behaviors when nudged by Dost, primarily in areas of talking, singing, playing, and behavior management.
Sustain immediate distance learning responses for achieving long-term goals	Yes	The solution that Dost Education provides relies on supporting parents with early childhood education to achieve long-term cognitive and developmental benefits in their children.

IMPLEMENTING CHALLENGES

Community outreach was the biggest challenge facing Dost Education after the spread of COVID-19 in 2020. Due to COVID-19 lockdown restrictions, Dost Education faced difficulties in reaching parents given the limited mobility of field staff. When lockdown restrictions were lifted, confirmed COVID-19 cases in Delhi, where most Dost users and staff members reside, increased. Since Dost users live in densely populated areas, Dost field staff avoided field visits, further limiting the organization's ability to promote the program and support parents on a one-on-one basis.

TAKEAWAY LESSONS

Despite the difficulty faced in reaching new parents during the pandemic, Dost Education's digital outreach and partnership development activities have enabled the organization to reach new users by leveraging the platforms of large foundations and organizations. The pandemic did not have a major impact on education delivery for the beneficiaries. Dost Education took the opportunity to educate their beneficiaries on COVID-related information. Further, the agility of Dost's systems and operations has made the transition to remote work for its program staff rather seamless.

The Dost Education solution is a distance-learning solution in instances where parents cannot afford early childhood education centers but are available to educate their children. Early childhood education for Dost beneficiaries happens at home with the help of dedicated parents. Dost has developed a real alternative to the in-person early-childhood schools and centers in a low-cost and distance learning setting.

Ek Tara

Ek Tara is a school located in Kolkata, India, with a total of 850 students enrolled in grades K-6, almost 90% of whom are girls. Ek Tara employs 40 teachers and uses English as the primary language of instruction. The majority of students in Ek Tara speak Hindi, which is their native language, and 40% of them have access to the internet and a smartphone.

Given country-wide school closures in India and the absence of functional distance learning systems, Ek Tara partnered with EAA to pilot The Internet Free Education Resource Bank (IFERB), which is a project-based learning resource with over 650 of its students. Ek Tara had to work around students' varying levels of access to the internet and digital resources to ensure the success of any intervention targeting learners in underserved contexts.

Before the start of the pilot, EAA and Ek Tara engaged in extensive correspondence that allowed us to understand the context and needs of the school and its learners to develop an appropriate distance learning solution. The school's administration provided details on students' backgrounds and current curriculum units that were covered before school closures. EAA worked with Ek Tara to develop both the mechanism as well as the content for communicating with students. For students who had access to the internet through their parents' smartphones, the internet-based text messaging application WhatsApp was used by teachers to communicate with them and their parents in their assigned groups.

Four types of phone call communications have been identified: topic introduction, daily instructions, clarification, and feedback. Group-wide messaging such as daily instructions and student final submission requests can be accomplished using WhatsApp groups, which can accommodate over 250 participants per group. Ideally, however, student groups led by a single teacher or facilitator should not exceed 30-50 students to allow for individualized communication. Individualized communication, such as providing clarifying answers to students' questions and requesting feedback, can be accomplished through either private messaging or calls. Providing

schools and NGOs with a toll-free number can be considered to expand access to individualized calls.

Below, we evaluate elements of the solution used for each case and the feasibility to replicate the solution.

SOLUTION

Criteria	Category	Details
Technological Readiness	Basic Phone/SMS Intermittent Internet-connectivity	Ek Tara uses Phone Calls, SMS and WhatsApp to share lessons and tasks with their students depending on their access to either technology.
Content availability	No	The school uses the IFERB projects created by EAA, which are under a Creative Commons License.
Personalization	Yes	IFERB content is adapted for the context of the community.
Interactivity	Yes	Learners engage with teachers
Mode	Asynchronous	After a scheduled call with the teacher, students perform the tasks required on their own time.
Feasibility to replicate		
Time	Short	The time needed to replicate the concept is short since the content is available and only needs to be contextualized.
Effort	Medium	Some effort is needed to contextualize lessons and connect with learners.
Money	Low	Phone calls and limited SMS messages are the only costs in this program.

FOLLOW-UP AND IMPLEMENTATION

In the first week of the pilot, students were divided into groups of 15 to 20 students, and each group was assigned to one teacher. Each teacher is tasked with delivering instructions and following up for clarifications, daily guidance, and feedback. There were 123 of the students in the pilot who are 4-6 years old, while 276 are 7-10 years old, 182 are 11-13 years old, and 95 are 14+ years old.

On a 5-day project week, teacher-student communication typically resembled the following:

- On the first day of the project, teachers call their students individually to introduce the project and share the task for the day.

- Teachers call their students individually to explain the task of the day and help students problem-solve through daily challenging tasks.

- Teachers call students at the end of the week to receive feedback on the project.

- Students take pictures of their project outcomes and send them back to the teachers at the end of the week.

- Students that do not have access to smartphones receive instructions via phone calls, but they do not submit their homework. Instead, teachers discuss their project outcome or another project component to verify completion.

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	Low	EAA helped train teachers for the implementation of IFERB (interacting with learners, contextualizing content, etc.)
Availability and ability of parents or caregivers to facilitate effective home-based distance learning	Available for guidance but not as an educator	Over 70% of parents are available to support their children with home learning. However, The average years of schooling for parents of Ek Tara students is 5 to 9 years, with the majority of parents having completed up to grades 5-7.

Monitoring and evaluation capacities		
Monitor distance learning processes	Yes	Teachers have regular calls with learners as well as individual follow-up calls.
Track the access to courses and engagement	Yes	Teachers collect feedback from students at the end of every project week. They also fill out a Google spreadsheet to keep track of their students' performance and write individual remarks about students documenting whether they were able to reach them and receive their submitted work
Assess learning outcomes	No	The outcome is not assessed since many of the students are unable to submit their projects
Sustain immediate distance learning responses for achieving long-term goals	Yes	The school plans to continue using the project-based learning post-COVID-19. Ektara continues to work for a sustained change in their pedagogical model when schools open. EAA has trained the teachers to sustain the approach.

IMPLEMENTING CHALLENGES

Ek Tara faced three main challenges in implementing this solution: parental involvement, connectivity, and engaging 14+ students.

Parental involvement

Given that the average learning levels of parents of Ek Tara's students are at the primary to middle school grade levels, it was essential to ensure during the project adaptation phase that instructions were clear and required minimal prerequisite knowledge. Aside from literacy and numeracy, parents' physical availability for support should also be accounted for in the design of learning resources. Fortunately, over 70% of students at Ek Tara receive parental support. However, in contexts where this is not possible, the learning journeys of particularly young

students (aged 4-9) could be severely disrupted, given the high need for supervision in this age group.

Lack of direct contact

Another challenge faced by Ek Tara teachers was the difficulty of relaying some instructions verbally, especially when an image is included in the lesson plan or when there is a need for visual representation. Learners were also exposed to new concepts that were more challenging to explain remotely. For instance, Ek Tara teachers discovered that some learners had never visited a restaurant and therefore found the "My Pop-Up Restaurant" project – where students create their restaurant – particularly challenging to execute.

Connectivity

Recharging mobile phones became increasingly challenging following the lockdown, which prevented a small number of students from full participation. Also, it was difficult for some students to submit their work. Students who only had access to feature (non-camera) phones made verbal submissions by describing the final product to teachers verbally on calls.

TAKEAWAY LESSONS

Teachers and students gave very positive feedback on the projects, which had an average completion rate of 83%. Teachers describe the projects as interesting, creative, and easy to explain. They remarked that this project has awakened students' curiosity and has made students very excited about doing something independently. Over 90% of students and parents reported that they found the projects engaging, educational, and easy to follow and implement using resources that are easily accessible to them. Teachers also reported that the projects fostered academic growth and 21st century skills among students. Teachers said that they were able to grow professionally in implementing project-based learning methodology while providing remote learning support for struggling students and brainstorming solutions to technology-related challenges.

Due to the success of the pilot, the duration of EAA's partnership with Ek Tara was extended for the duration of the closures and as schools partially open to using IFERB as a supplementary project-based learning resource that complements traditional lecture-style classes.

The IFERB solution proved to be a model to ensure learning continuity in cases of educational disturbances. The technology-free and low resource requiring projects are designed for students to lead their learning and leverage parents for support. The resources are being used for screen-free learning and adapted into various languages for broader support.

iACT: LITTLE RIPPLES

iACT is a Los Angeles-based international organization that provides humanitarian action to aid, empower, and extend hope to those affected by mass atrocities. All of iACT's work is grounded in community collaboration, trauma-informed approaches, restorative practices, and peacebuilding skill-development.

iACT provides a cost-effective and replicable early childhood development program called Little Ripples. The program empowers refugee communities affected by humanitarian crises to implement child-centered, quality education that supports the social-emotional, cognitive, and physical development of children aged three to five years old. Program activities can be adapted to take place in schools, child-friendly spaces, community centers, and home compounds (referred to as "Ponds"). Ideally, each learning space employs two teachers from the community to care for and instruct up to 45 children. Currently, the majority of teachers are women over 18 years old.

Most communities served by Little Ripples are in protracted crises and from communities that are often "forgotten" like Darfur, Burundi, and the Central African Republic. In Darfur, the refugee population indicated the need for support for young children. iACT worked with experts and practitioners in the areas of child development, early learning, trauma recovery, and mindfulness to develop the Little Ripples program. It has reached to date 12,892 children.

Little Ripples' story begins with iACT's work in eastern Chad to support Darfuri refugees, documenting life in the refugee camps to help spur global action. The team asked the Darfuri refugee population what services they needed and wanted most – the answer was support for young children. Unfortunately, at that time, there was a lack of organizations offering early childhood education.

The model used in Little Ripple empowers communities to make decisions on the program implementation through capacity building. Little Ripples does not impose activities on the teachers. It provides communities with a framework adaptable across cultures and contexts, with three pillars that guide the daily activities and atmosphere: peace, helping, and sharing. Based on these three pillars, the facilitator of the program leads the discussions among the community, and from this discussion, the program content is created. The daily activities instead are discussed during teacher training: the selection of community songs, play-based activities, readings, creation of their own stories.

SOLUTION

Criteria	Category	Details
Technological Readiness	No technology	No technology is needed. Children attend to a physical establishment where they learn from two trained educators
Content availability	No	The Little Ripples curriculum was uniquely developed in collaboration with experts in several areas. The curriculum focuses on teaching literacy, numeracy, and social-emotional learning and can be used alongside any pre-primary academic curriculum.
Personalization	Yes	The curriculum contains a framework designed by experts in early childhood education. However, teachers adapt the activities as they prefer. Each community decides most of the aspects concerning the program: the place where the pond will be, hours per day that the classes will take place. The program always contains the same core pillars: peace, helping, and sharing.
Interactivity	Yes	The curriculum is grounded in play-based education, trauma-recovery approaches, restorative practices, and incorporates social-emotional learning, empathy development,

		positive behavior management, peacebuilding, and mindfulness.
Mode	Synchronous	Little Ripples activities are delivered in Ponds – classrooms.
Feasibility to replicate		
Time	Medium	The replicability varies for each case. It depends on the interest of the community, the availability of home space to build the pond but also the time of the year. For example, in eastern Chad, all activities are paused during the rainy season since most refugees are working on the fields. Once these elements are in place, the remaining steps are the construction of the pond and the teachers' training.
Effort	Medium	
Money	Varies	

FOLLOW-UP AND IMPLEMENTATION

iACT identifies refugee communities with local NGOs where they take the lead conversations with the local government and represent Little Ripples in local meetings held in the camp by NGOs or the community itself. They are camp-wide meetings, zone meetings, and education meetings. The teachers' participation is around early childhood development and preschools.

Once the community has been involved, and the leaders have approved the program, iACT organizes a training schedule to identify and hire the teachers. The training process includes inviting 25-30 people interested in this role to take part in the training, during the training 7 candidates are identified, 6 of them will be hired as teachers while one will be hired as an education director. During the identification teacher training, the 7 selected decide the curriculum; as a team and select their Education Director.

At the same time, iACT looks out for families interested in hosting Little Ripples "Pond." iACT visits the home to evaluate them and makes sure the facilities meet safety standards. Usually, the program in the host family is hired as a cook. The cook's responsibilities include creating a safe space physically, cooking, and serving daily meals. The locations of the pond within the larger camp are decided at a community level where it is more needed, especially in-home centers, to make it as accessible as possible. Once the Pond is open, the kids start attending classes. At the

beginning of the program, a teacher's rotation is encouraged, which means that one teacher will stay and the other will rotate to another pond for one week during the first three months. This system helps teachers learn new learning methods from other teachers. The cooks have also started the rotation system to learn more recipes.

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	High	Teachers are trained in a three-part training, within six months of each other, the third training can be within 8 months. This gives the teachers time to practice and design their own solutions. During teacher training, they go through different modules, where they can adapt the activities based on each learner's culture (e.g., music, games)
Availability and ability of parents or caregivers to facilitate effective home-based distance learning	Yes	Teachers are encouraged to have weekly community meetings where teachers show parents what they do during the day, practice mindfulness activities with them, and engage in conversations around how they can play with their kids.

BUILDING RESILIENCE

When the pandemic started, iACT surveyed the community leaders in Chad, Tanzania, Cameroon, and Greece about the information they were receiving concerning the virus. iACT found that the refugee communities did not know how to handle the situation. As a result, iACT created a package of information to raise awareness that was shared via WhatsApp. These one-pagers contained useful information on preventing the spread of COVID-19 and home activities with the children.

Communities' leaders identified that one of their biggest needs was the lack of soap. Hence, iACT started a fund-raising campaign and distributed the cash among the community leaders to buy what was needed. In Tanzania, for example, the community decided to buy a bicycle, and instead of reaching 100 families in a day, they could reach 600. In Greece, they bought masks for about 2500 refugees

The program is run in refugee camps where the internet connection is usually unavailable. It is run by the community and requires physical contact. Temporarily, during the COVID-19 crisis, the organization still managed to ensure education continuity via WhatsApp and volunteer visits.

IMPLEMENTATION CHALLENGES

Local Partner trust

It is hard for the local partner to understand the model and the existing techniques of iACT. As described, all decisions concerning the number of days that the classes will take place, home location, potential teachers, etc., are decisions that must be made by the communities and thus requires a deep understanding of the model.

Fundraising

Funding for refugee-led efforts can be very challenging as it means finding ongoing financial support for community ideas, which takes flexibility and trust. Also, understanding the process of implementation is as important as the outcome. The process is what fosters long-term resilience in community leaders and the community itself. Since every program is different, and some tasks such as finding the right place may take some time, iACT seeks dynamic funders who provide multi-year funding to ensure positive impact. Communities want more programs to reach more children.

Translation

Translation is another challenge in that turnaround times are slow for both common and rare languages of iACT beneficiaries. In a situation where time is urgent, speeding up translations and having resources more readily available becomes very important.

TAKEAWAY CHALLENGES

Takeaway Lessons

Young children's education has been identified as one of the key needs of the different communities of refugees that iACT has interviewed. Unfortunately, due to lack of resources and sometimes even lack of prioritization from the host countries, refugees are left alone with no support in terms of early

childhood education. iACT has shown that although it is not an easy task to ensure early childhood education in these communities due to the lack of continuous, flexible, long-lasting funders, it is not an impossible task either.

iACT has challenged the traditional education system by harnessing the strength of the community to create a system where children continue to learn. Most of these communities have been glad to participate in the Little Ripples program and are willing to dedicate time to learn and to spend with the children. This approach has proved that by giving the communities some guidance and leaving them the opportunity to make choices: each community is empowered and willing to run the childhood education program on their own. The emphasis on building strong community ownership results in the development of a model that is applicable in the absence of schools to ensure education continues.

Unfortunately, during the pandemic, most refugees were unaware of the information available on the virus. This was a consequence of their isolation but also of linguistic barriers as refugees speak – in most cases – a different language from their hosting country. iACT has shown that by working together with the community, even under such circumstances, people are willing to cooperate and do all that is necessary to ensure that learning continues regardless of any disruption.

M-Shule

M-Shule is the first personalized mobile learning platform in Africa to connect learners with tailored tutoring, training, assessments, and data through SMS and texting. Based out of Nairobi, Kenya, and meaning "mobile school" in Swahili, M-Shule's platform uses artificial intelligence to deliver personalized learning support in academic and 21st-century skills over SMS and chatbots, building concept mastery, skill, performance, and confidence. M-Shule analyzes data and shares insights with key stakeholders and organizations to power better support, reporting, and collaboration.

M-Shule focuses on the provision of accessible education to impact lower-income communities. The team recognized that parents and learners are not getting the right support for education due to a lack of sufficient resources and technical knowledge, as well as the lack of access to information and communication technology. They wanted to utilize existing technologies such as mobile phones, both smartphones and feature phones, to be able to reach communities without the requirement for additional resources and identified the use of SMS technologies to be the most efficient approach.

Content is produced with educators as well as content publishers to ensure both localization and relevance of content to the targeted learners. The material was produced in bite-size pieces and is capable of adapting to the different levels of the learners based on their interaction and responses with the content. The content is delivered via SMS, and M-Schule works with local telecommunications companies to push out material at no cost to the learner. Usually, the school pays for the cost of SMS technology and students can interact with the material with no additional cost. In situations where learners are accessing the technology independent of school service, the cost of accessing the technology is between 1 USD or 2 USD for three months of access.

Students can sign up through SMS and will be asked a series of questions to initially determine their level of understanding in addition to standard questions about their last grade level and the last set of formal exams that they took. Throughout the interaction with the technology, students are constantly assessed on their understanding of a particular educational concept and based on their responses. The platform can either accelerate or remediate learners through academic content.

M-Shule's goal was to provide learners with the skills and education that were relevant to their particular needs. The program started off using literacy and numeracy as the initial educational content and then developed vocational education for all parents of learners.

SOLUTION

Criteria	Category	Details
Technological Readiness	Basic phone/SMS	M-Shule makes use of existing technologies the learners have access to: both smart and feature phones. Uses SMS technology to deliver and interact with the learner.
Content availability	No	Content is developed by an internal team in line with the Kenyan national curriculum and is available in English and Swahili
Personalization	Yes	The platform uses AI and machine learning to assess a learner's progress continuously. Assessments are used to check learner's mastery and content is delivered per learner state
Interactivity	Yes	The app encourages student learning through active interaction with the platform. Students request for educational content and interact with SMS' through formative assessments. Content is then personalized for the learner based on their continuous assessment.

Mode	Synchronous	Synchronous, direct interaction with the platform via SMS/Tablet app.
Feasibility to replicate		
Time	Short	Immediate access is available to all users on a subscription basis. Alternatively, schools/organizations can purchase bulk subscriptions for their learners.
Effort	Low	Learners need to send an SMS to subscribe to the platform and can use the platform using their feature phone or a basic smartphone
Money	Medium	For an organization looking to implement M-Shule, a custom package is created based on their program, sector, number and demographics of users, and features or tools they require. For setting up the project, M-Shule may create customized content or design program-specific reporting; during implementation, they will cover all costs of each learners' engagement based on the amount of content and information going out.

FOLLOW-UP AND IMPLEMENTATION

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	Low	Teacher independent – learners can access learning resources without the need for a remote educator.
Availability and ability of parents or caregivers to facilitate effective	N/A	Parent and caregiver interaction is minimally required: need to provide their learners access to the phone.

home-based distance learning		
Monitoring and evaluation capacities		
Monitor distance learning processes	Yes	The platform uses data to understand learner pace and progress to deliver appropriate content
Track the access to courses and engagement	Yes	Student progress is tracked through continuous assessment. Students interact with the platform in a series of responses to questions that determine how the learner is progressing through a learning pathway. M-Shule uses a notification system to encourage learners to return to the application.
Assess learning outcomes	Yes	
Sustain immediate distance learning responses for achieving long-term goals	Yes	M-Shule was able to continue supporting learners during the COVID-19 pandemic.

IMPLEMENTATION CHALLENGES

The COVID-19 pandemic resulted in a significant uptake in the number of users since the school closures. Before the closures, approximately 11,000 learners were using the platform, but the number of users increased to 13,000 as of June 2020.

Learners were initially using the platform as a supplementary education tool. There has been an increase in the number of learners who use it as their primary means of education. Parents of the learners have been supportive in the provision of access to phones for the learners to use. Given the increase in parental involvement, the organization has sought to help parents by providing additional resources such as timetables and schedules for the learners to help manage their days.

There has been an increase in the request for additional content as the platform currently only supports learners between grades four and eight.

TAKEAWAY LESSONS

The "mobile school" offers an alternative to the traditional education system where students receive personalized content. M-Shule has been able to support the continuation of education for many, particularly during the pandemic. The team has found that the learners have begun to start using MShule as their primary means of education; therefore, the organization recognized the need to provide additional support to the parents: such as daily learner schedules and subject support, as well as developing digital literacy resources for parents. The model can be leveraged in the case of any interruptions to learning to enhance the resilience in the education system.

POWER99 FOUNDATION

Power99 Foundation is a nonprofit development organization in Pakistan. The foundation has a mission of transforming the Pakistani education system into an effective tool for providing knowledge, critical and scientific thinking, and peaceful coexistence.

In Pakistan, all public and private schools were closed at the onset of the COVID-19 pandemic in an attempt to contain the spread of COVID-19. This has disrupted the education of over 46.8 million children, which has long-term implications for their learning journeys. This is especially for the most vulnerable children who lack access to alternative education solutions.

The spread of COVID-19 and ensuing school closures has placed learners worldwide in a compromising position as pertains to their ability to continue learning effectively. In the absence of viable schooling alternatives, vulnerable learners are especially at risk of experiencing learning loss and the disruption of their learning journeys given their limited access to e-learning resources and other solutions.

To address the newfound challenges imposed by the spread of COVID-19, the Ministry of Federal Education and Professional Training has introduced the first-ever tele-school in Pakistan to support the learning of public schools' students and minimize learning loss due to COVID-19 school closures. The majority of students in rural areas, however, do not benefit from tele-school due to several barriers, including the limited availability of electricity, the acceptance of TV as a medium of communication, and socio-economic conditions. Additionally, the need for wide-reaching and easily accessible educational content is especially pronounced for Pakistani girls, many of whom are forced to quit education after primary or secondary school and lack access to such content.

Compared with television, radio offers a cheaper and faster alternative. It also helps with more localized content and community interaction in a specified geography. Also, where electrical

infrastructure is lacking, radio offers an advantage over television since it can be powered through the use of batteries. Radio has been used effectively to spread information and awareness in areas of governance, health, politics, and education. Besides, since most mobile phones have a radio as a plug-in, radios are used increasingly as an individual device, making it easy to access the radio without purchasing a device.

To contribute to the national efforts to mitigate the effects of the pandemic on education, POWER99 Foundation redesigned its already developed program "Broad Class - Listen to Learn" as an emergency radio education program called "***Parhai Caro Na***," (Let's Learn). This distance learning initiative is a stop-gap arrangement that uses radio to disseminate educational content given its accessibility, thereby allowing learners to safely continue their education amid the COVID-19 pandemic.

Power99 Foundation began developing the program after they were approached by Madaris (religious schools) to develop content beyond religious education for their learners who were left without access to any schooling after schools were closed. Radio was selected as a medium of dissemination for several reasons. In Pakistan, 4G coverage is not universal, which means that internet-based interventions would have limited reach. Sharing lessons via television also proved challenging as it requires additional capacity and resources to design and disseminate rigorous learning content that the POWER99 team lacks. Radio offered an affordable and accessible alternative. With the help of a partner organization, the Power99 team curated content from third-party sources and conveyed radio lessons and activities to learners through a daily 30-minute broadcast segment. The lessons were broadcast daily and covered English and Math concepts using English as the language of instruction given. They were presented by radio reporters and broadcast in 3 segments by grade level (KG to Grade 2). In addition to the lessons, the program also included 30-minute sessions that featured feature riddles and other activities that added an interactive and stimulating element to the program.

The program "Broad Class – Listen to Learn" combines radio broadcasts and active learning to maintain learning, increasing girls' achievement in learning, closing the rural/urban education gap, and increasing access to educational content for out-of-school learners. To date, the program has reached more than 200,000 children in Islamabad Capital Territory, Abbottabad, Battagram and Haripur districts of KPK province, Quetta district of Balochistan province, and Vehari district of South Punjab in Pakistan. 60% of the beneficiaries of the program are girls.

SOLUTION

Criteria	Category	Details
Technological Readiness	Radio	The "Broad Class – Listen to Learn" program is executed fully through radio.
Content availability	No	Content is created by partner organizations and is shared through FM Radio. However, POWER99 continues to face content shortages due to its reliance on external content developers.
Personalization	No	Content is created in alignment with the national curriculum textbooks for English and Maths and is broadcast in three segments according to learners' ages. However, it is not personalized to the specific learning needs of listeners, despite its availability for different age groups
Interactivity	No	Overall, broadcast lessons are not interactive. However, in addition to the daily 30-minute lessons, POWER99 offers interactive sessions with riddles and other activities to stimulate a child's imagination and creativity.
Mode	Synchronous	Students receive their lessons through radio broadcasts.
Feasibility to replicate		
Time	Short	The basic content and infrastructure to replicate this solution exist. Contextualized content would, however, need to be developed.
Effort	Medium	More content is required to continue running for a long period. Additionally, organizing content

Criteria	Category	Details
		creators, volunteers, and broadcasters is also required.
Money	Medium	Most households have radios or can easily access radios through mobile phones or in cars. The NGO is likely to incur costs during the development or curation of content and broadcasting it.

FOLLOW-UP AND IMPLEMENTATION

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	Low	Staff is prepared to assist in administrative, financial, and logistic support for implementation, but not the development of content.
Availability and ability of parents or caregivers to facilitate effective home-based distance learning	Low	Most parents do not have the literacy level desired to support their children with the lessons.
Monitoring and evaluation capacities		
Monitor distance learning processes	No	POWER99 Foundation conducts a pre/rapid assessment for a sample population to get data on two key themes – situation analysis and knowledge assessment. Situation Analysis encompasses information on the number of students affected by school closure and other out-of-school children in target communities. The second part of pre/rapid assessment collects data from representative children

		on account of their level of knowledge against the national curriculum.
Track the access to courses and engagement	Yes	The team gets feedback from communities on the program and its impact on the learning of children through their helpline, social media pages, and calls during live call-in interactive radio programs regarding awareness of Coronavirus.
Assess learning outcomes	No	POWER99 Foundation team conducts post-assessment of randomly selected sample populations to get data to measure the effectiveness of the contents delivered for children and adults
Sustain immediate distance learning responses for achieving long-term goals	No	Even before the COVID-19 pandemic, POWER99 Foundation was implementing the "Broad Class – Listen to Learn" Interactive Radio Instruction program in public schools. When the schools open after the pandemic is over, the program will continue to target increased learning.

IMPLEMENTATION CHALLENGES

1. The ability of many parents to support at-home learning is limited due to low literacy levels.

2. Quantitative and qualitative assessments have not been done during the pandemic due to the unavailability of volunteers and the difficulty of reaching students and conducting assessments.

3. On average, families have 3-5 children, but only one radio device or streaming option, making it difficult for all children to access the content.

4. There is a shortage of radio devices, which means that the content does not reach all vulnerable homes.

5. More content is needed for the program to continue.

TAKEAWAY LESSONS

Radio broadcasting is popular worldwide and is commonly used as an affordable and effective medium for disseminating educational content both before and during the pandemic.

Radio-assisted instruction plays an important role in extending educational opportunities to children in remote and rural areas where access to schooling is a challenge. In Pakistan, some girls are forced to quit education after primary or secondary school. In this context, these radio broadcast lessons have removed a barrier for these girls and enabled them to gain access to basic educational content. To date, POWER99 has been able to reach over 200,000 children, 60% of whom are girls, throughout Pakistan with plans to reach even more.

Pratham

PRATHAM AND EAA'S DIGITAL SCHOOL PROJECT PILOT

Pratham is one of India's largest education NGOs dedicated to providing quality education for millions of children and youth across 21 states and union territories in India. During the COVID-19 lockdown, Pratham strived to create contextualized content, work in partnership with 14 governments, and over 200 nonprofits and ensured a resilient two-way communication channel with 12000 communities. Pratham created new content for mediums such as TV, Radio, Interactive Voice Response (IVR) and SMS and continued to disseminate digital content in 11 regional languages.

Pratham and EAA partnered in 2019 to co-design and implement the India-based pilot of Digital School Program (DSP) with over 2000 learners in over 150 villages in the state of Uttar Pradesh. The average age of the learners is 17.5 years, and 89% of the enrolled learners are female. The DSP is a blended learning model designed to provide quality education for out-of-school adolescent learners by working around the circumstantial constraints faced by these learners such as distance to school, employment, and familial responsibilities. The educational team consists of facilitators, coaches, and student course leaders.

Facilitators are trained on facilitating student learning in a technology-enabled environment, while coaches are community youth volunteers who guide the students and support the facilitators. Student course leaders are DSP students who are selected to serve as a bridge between facilitators and students by working with coaches to support the learning of students on days when facilitators are not present.

The goal of the DSP pilot is to provide students with access to quality content for English, Math, and Language (Hindi) to build their skills in these subjects. The pilot enables them to sit the grade 8 NIOS exam and work toward completing the 10th grade NIOS school leaving diploma exam in the next phase of the EAA-Pratham partnership. In the DSP model, learners study:

- in village-level groups in their community centers under the supervision of a facilitator (serving as the teacher)

- in smaller neighborhood-level groups guided by volunteer coaches;

- and individually using tablets that are pre-loaded with learning applications in addition to printed materials.

COMMUNITY LEARNING
Village-level class conducted by the facilitator with 15 students

GROUP LEARNING
Hamlet-level study group guided by the coach with 4 students

INDIVIDUAL LEARNING
Individual study session using tablet and printed materials

Following the spread of COVID-19 and the announcement of the countrywide lockdown, mobility in the villages was restricted, and all visits by facilitators and meetings by students were paused. To circumvent this challenge, **Pratham's COVID-19 response in the DSP project was centered on the use of phone calls, SMS messages, radio, TV IVR to ensure the continuity of students' learning and engagement.**

The Pratham team conducted an exercise to map every student to a device they had access to, whether a smartphone, regular phone, or feature phone, with the help of the facilitators. The team was able to connect to 60% (about 1300) of the learners through mobile phones.

During the first three weeks of the lockdown, facilitators delivered lessons by calling students individually or connecting to 2-4 students together through conference calls. On average, each facilitator made nine phone calls (of about 20 min each) to his/her five village groups every day over the first three weeks of the lockdown.

Facilitators began sending short, curated text messages (SMS) to their students every week from the fourth week of the lockdown. Each text message outlined an activity related to a subject - Language, Math, or English. Facilitators called each student individually twice a week to explain

the activities, check if the students had completed the activities, and help them with any challenges they faced. **On average, each facilitator speaks to about 35 students every week. Over 1000 students in DSP are in touch with their facilitators twice a week. 70% of students complete the activities sent each week.**

SOLUTION

Criteria	Category	Details
Technological Readiness	Basic phone/SMS	Facilitators send short, curated text messages (SMS) to their students every week. Each message outlines an activity related to a subject - Language, Math, or English.
		Facilitators also call each student twice a week to explain the activities to the students, check if the students had completed the activities, and help them with any challenges they faced.
Content availability	No	Content is developed by Pratham and aligned with the national Indian curriculum as well as learners' contexts and learning levels. It is delivered through digital applications and printed materials to ensure a balance of digital and non-digital learning.
Personalization	Yes	The content is appropriate for the learners' contexts, linguistic background, and learning needs. It includes several learning levels starting with foundational skills to advanced levels. Content shared through SMS and phone calls is also personalized according to student levels and gradually increases in difficulty.
Interactivity	Yes	Pratham's learning content on tablets is highly interactive and uses simple game-based activities to engage students. The DSP model ensures an engaging experience in all learning settings (group

		vs. individual). Although the phone and SMS model is not interactive in the technical sense, the delivery of the SMS followed by phone calls from facilitators makes up for lost tech interactivity.
Mode	Synchronous	Facilitators maintain a regular schedule of calls and SMS texts that always take place through a mobile phone.
Feasibility to replicate		
Time	Short	The week before the lockdown started, facilitators began calling students and conducting remote sessions. Initially, the aim was to keep students engaged until new learning content was curated in the message format. Two weeks later, the messages were ready, and facilitators began sending text messages to students.
Effort	High	To keep students engaged, facilitators send messages, and conduct follow-up calls at least twice a week. Calls and messages vary based on students' learning levels. Facilitators also undergo weekly subject-specific training on how to conduct remote calls and enable student learning for students of different learning levels. Facilitators also have to record their interactions with the students for monitoring purposes.
Money	Low	Pratham reported that the project cost was USD 50 per village for a scale of 150 villages.

FOLLOW-UP AND IMPLEMENTATION

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	Low	Subject matter experts created the educational content of the messages, which were then shared by facilitators who, in turn, shared them with their students and conducted follow-up phone calls.
Availability and ability of parents or caregivers to facilitate effective home-based distance learning	Partially	Parents were not able to guide the students, as most students are first-generation learners. Some students were supported by their siblings, who assumed the role of a guide/coach but not an educator.
Monitoring and evaluation capacities		
Monitor distance learning processes	Yes	Facilitators collected information about each phone call they made to the students. Every week, they summarized and recorded this information in a form. The form was submitted through Pratham's Dynamic Data Entry application. Every week, facilitators reported on the number of students they spoke to, the number of students they were not able to reach, the number of students who completed the activities, reasons why students were not able to complete the activities, and the number of students who took help to complete the activities.

Track the access to courses and engagement	Yes	As a result of the COVID-19 lockdown, students who had the tablets were not able to share them with group members as was previously done. Students who had tablets were given activities to do on the tablets. However, most students have not had access to tablets for two months. Content shared through SMS was shared directly and followed a set schedule, which made it easy to track.
Assess learning outcomes	No	Remote assessments were conducted for students who could only read words. The assessment tool was sent to students as an image via WhatsApp, and facilitators assessed the students over a phone call.
Sustain immediate distance learning responses for achieving long-term goals	No	The new DSP model was developed to circumvent the challenges imposed by the lockdown and will be used until the lockdown is lifted and in-person group sessions can be resumed. This model will likely be used until September 2020.

IMPLEMENTATION CHALLENGES

The spread of COVID-19 introduced new challenges to the implementation of the DSP. About 10% of students don't have access to a phone and have, therefore, not been able to benefit from the COVID-19 response outlined above. Another 30% of students live further away from the village center and have not been reachable since the beginning of this lockdown. Attempts are currently being made to reach these students, who will likely require special attention to be brought up to speed.

Additionally, parents and spouses of students were initially unsupportive of the messages and phone calls made by facilitators due to cultural factors. Since most learners are young women, some of whom are married, long phone calls or those made during the evening were a challenge. Facilitators spoke to the learners' families and explained the importance of staying in touch during this time, following which many parents and spouses cooperated with the team. Given the current uncertainty regarding mobility and the lifting of the lockdown, Pratham intends to continue using the current COVID-19 response model to engage students until further notice.

TAKEAWAY LESSONS

In this pilot project, Pratham had explored various options each of which enhances current program capacities. Sending SMS messages during the lockdown period has opened up a new avenue of communication between students and facilitators. Facilitators can continue sending messages to students after the lockdown is lifted to keep students engaged through the week.

Once some restrictions are lifted, student course leaders and coaches can be trained to play an essential role in facilitating remote learning. Students also need to be trained to use technology to widen the scope and reach of remote mentoring and learning. However, the use of SMS for home delivery of content and individual focus will continue. Following up on phone calls is also an activity that will likely continue.

Pratham was able to reach more than 1000 students during the lockdown, 89% of which are female. Pratham continues to expand their models across the technology spectrum to be able to reach all beneficiaries in varied contexts and regardless of their circumstances.

RISING ACADEMIES: RISING ON AIR

Rising Academies was founded in Sierra Leone in 2014 to provide education to children before the Ebola epidemic. In April 2015, Rising Academies opened their first school. In Sierra Leone, Rising Academies operate a low-cost private school model where they share lessons learned with the local government and other partners.

Sierra Leone and Liberia have low internet connectivity and weak infrastructure rendering online learning an unrealistic or inequitable solution. In both countries, only 1 out of 8 people have access to the Internet, while access to radio and phones is better distributed, with 51:49 men to women ratio, and a 62:38 rural to urban ratio.[2]

Lack of learning resources at home is a challenge for most children in Sierra Leone and Liberia. As a response to COVID-19, Rising Academies adapted their curriculum content into a radio program called Rising On Air, to ensure the students continue their education even while they are out of school.

Rising On Air is a 20-week program of ready-to-air radio standardized scripts along with SMS content to support learners. The content is developed by a team of international writers and curriculum writers in English. The scripts focus on numeracy and literacy for early childhood, early primary, upper primary, early secondary, and upper secondary education. Each lesson is 30-minutes approximately starting with 5 minutes of music and health messages followed by 25-minutes of academic content. Other partner organizations funded Arabic- and French-translation.

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[2] Lamba, K. and F. Reimers (2020), Sierra Leone and Liberia: Rising Academy Network on air, Education continuity stories series, OECD Publishing, Paris.

To enhance the effectiveness of Rising on Air, Rising Academies developed a 20-week series of SMS content to complement the radio program. Its content targets and focuses on parents and the role they play in supporting children as radio listeners and learners. Rising Academies use parents' feedback to inform subsequent message content. SMS content includes schedule reminders, tips on radio prep and listening, after lesson tips, friendly parent encouragement, and positive parenting.

Rising On Air has been broadcast directly by Rising Academies to around 1.4m children in Sierra Leone and Liberia. It has also been adopted by 3 other governments and around 27 other providers across 20 countries, having been made available for free via Rising's website (www.risingacademies.com/onair).

SOLUTION

Criteria	Category	Details
Technological Readiness	Radio/Television SMS/basic phone	Rising on Air is broadcasted on the radio; however, SMS is used to guide parents on how to prepare and support their children and how to manage them during this pandemic.
Content availability	No	Rising Academies creates its own content and provides it for free to others via a Creative Commons License.
Personalization	No	Rising Academies created standardized lesson scripts for the possibility to be adapted in different countries or contexts.
Interactivity	Yes	Rising on Air provides encouragement for active learning and student involvement such as child movement based on answers, mindfulness, singing, and drawing. Rising Academies has hotlines to call to give feedback on the content.

Mode	Synchronous	Students receive their lessons through radio broadcasts.

Feasibility to replicate		
Time	Short	The content and infrastructure to replicate this solution exist. Rising Academies partnered with national radio in Liberia, Sierra Leone and with 3 other governments and 25 other provides across 20 countries
Effort	Low	Rising Academies offer their materials including scripts and recordings for any interested NGO via their website
Money	Low	Unless modification is needed, the cost of replicating this model is low. Costs of adapting the content may include translation, audio recording, etc.

FOLLOW-UP AND IMPLEMENTATION

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	High	Rising Academies use high-quality, structured curriculum content, intensive teacher coaching, and rapid feedback loops to ensure quality education. Rising Academies teachers call parents to check-in and ask for feedback.
Availability and ability of parents or caregivers to facilitate effective home-based distance learning	Available for guidance but not as	In many households in Sierra Leone and Liberia, adults cannot support their children in their at-home learning.

	an educator	
Monitoring and evaluation capacities		
Monitor distance learning processes	No	Rising Academies set up a hotline number in Liberia and Sierra Leone, which is provided at the end of each radio lesson encouraging parents and students to call and give feedback.
Track the access to courses and engagement	No	Rising Academies tracks the number of broadcasts aired versus the number scheduled to air (to ensure broadcasts are aired as planned); the number of teacher phone calls to students to confirm they heard the lessons; the number of SMSs sent and received. However, tracking engagement is a challenge given the nature of the solution.
Assess learning outcomes	No	An external entity is conducting a controlled experiment on the progress of some students throughout different grade levels and districts where Rising on Air is implemented. Students have been assessed prior to school closures during the crisis and will be assessed again after school reopening.
Sustain immediate distance learning responses for achieving long-term goals	Yes	Rising Academies plans to use the radio and SMS program to complement its core curriculum and communication with families.

IMPLEMENTATION CHALLENGES

Providing supporting material

Rising Academies initially planned to provide physical handouts to accompany the lesson. Still, they decided against it when they realized that the lessons would be used nationally and across

more than 20 other counties. Therefore, radio lessons were created with the assumption that students would not have any supplementary paper resources.

Informing rural communities about Rising on Air

Although radio is available in rural communities in Liberia, there was little awareness of the availability of Rising on Air. Rising Academies engaged community stakeholders and created WhatsApp campaigns to inform families and engage them in the program.

TAKEAWAY LESSONS

The development of high quality, engaging scripts that are adaptable to other contexts is highly sought after. By offering these scripts for free via a creative commons license, Rising has helped accelerate the process for partner organizations and governments wanting to deliver radio broadcasting. It has also helped bring down costs as script development is typically the most expensive and labor-intensive element of the program.

The program has also shown that creating 'standardized' resources can be a great platform for others to build from. Rising On Air is being adapted into a variety of local languages in Africa and Asia, as well as more formally being developed into French and Arabic.

Rising On Air is also now benefiting from network effects created through sharing the materials. The 25 providers and 5 governments working on distance learning projects via Rising On Air have formed an informal community of support, sharing ideas, research, and new innovations to support each other's programs.

Rising on Air reaches more than 12 million children and is continuing to expand to support children in geographies across the world. Despite school closure, learning for those children continued at home. Rising On Air allowed those children to continue their education without allowing their circumstances and any education disruption to put them at a further disadvantage.

LUMINOS FUND: SPEED SCHOOL

The Luminos Fund is a non-profit organization launched in 2016 to ensure that children everywhere get a chance to experience joyful learning, especially those denied an education by poverty, crisis, and discrimination. To date, the Luminos Fund's Speed School initiative, (also known as Second Chance), an accelerated learning program for out-of-school children, has helped more than 136,000 children get back to school and develop vital skills needed to support a lifetime of learning.

The Speed School program is focused on primary school-aged out-of-school children (aged 8-12) who have never attended school or who have dropped out and are currently overage to attend the grade that matches their academic level. In ten months, the program enables children to learn to read, write, and do basic math. Through a condensed curriculum, children cover grades 1-3 within the 10-month program. With this knowledge, they are able to mainstream into their local school, together with children their own age.

The model aims to improve individual learning by seeking not only accelerated learning but also deeper and more effective learning. A six-year longitudinal study (https://luminosfund.org/wp-content/uploads/2018/11/Sussex-Evaluation-Full.pdf) demonstrated that graduates of Speed Schools complete primary school at twice the rate of their peers and have higher academic outcomes and aspirations for the future. The Second Chance pedagogy, specifically its ability to build learners' confidence in their ability to learn, was identified in the evaluation as a key factor for the success of the Luminos model (https://luminosfund.org/long-term-impact/). The evaluation results provide strong evidence for the long-term impact of the program on out-of-school children in Ethiopia and beyond.

Luminos currently operates in Ethiopia, Liberia, and Lebanon. In 2020/21, Luminos is impacting 2,500 out-of-school children in Liberia and over 10,000 students in Ethiopia. In Ethiopia, Luminos is also supporting the government to adopt and scale Speed School nationally.

By the end of the program, Lunimos students read 40 words per minute on average. Once they complete the program, students take a government-designed placement exam which determines the grade into government school that they will transition to (generally grade 3 or grade 4). Out of school children are generally overage but are expected to transition with children their own age as per government regulations. Speed School follows the same calendar as the regular school in the context that they work. For example, in Liberia, children start in September and finish in June. Classrooms are located in the community, often within empty town-halls, churches, mosques, or empty government primary school classrooms.

SOLUTION

Criteria	Category	Details
Technological Readiness	No technology	Luminos works in some of the most remote, rural communities. The model does not utilize technology in the classrooms.
Content availability	No	Luminos works with the national government to ensure that the Speed School curriculum is aligned to the national curriculum. All materials are open source.
Personalization	No	The content is based on the national curriculum and is translated into local languages. In Ethiopia, the curriculum is delivered in seven different local languages. Struggling students are supported with remedial instruction, which is delivered in small groups.
Interactivity	Yes	The program focuses on activity-based learning. The program runs over an 8-hour school day with 5 hours for Literacy and 2 hours for Maths with a strong focus on students' development of basic skills. Activities including role play, acting, song, dance, class presentations, which stimulate and deepen learning through multiple modalities. Speed School facilitators (teachers) create opportunities for small group work so that students

		are constantly learning from peers. The curriculum encourages facilitators to use local materials (clay, bottle caps, stones, etc.) for a variety of activities. The use of physical materials supports the engagement of the five-senses and augments learning.
Mode	Synchronous	Speed School is delivered in the classroom within the communities
Feasibility to replicate		
Time	Long	Luminos estimates the time to create a classroom to be approximately 6 to 8 months.
Effort	High	The effort needed to replicate the Speed School model is high. Activities needed include curriculum development and adaptation, selection and training of partners, facilitator/student selection, teacher training, government partnership management, establishing classroom monitoring and support systems and tools.
Money	Low	Luminos costs are approximately $150 per student annually. The government provides classroom space and the necessary infrastructure in both Ethiopia and Liberia. In Ethiopia, the Government is providing one teacher for each Speed School classroom that is implemented and managed by the government. Luminos and its implementing partners provide ongoing technical support and teacher training.

FOLLOW-UP AND IMPLEMENTATION

Luminos works with local implementing partners, education NGOs, who have strong experience in education service delivery in the communities where Luminos is working. There are very close relationships developed with the local partners, all of which have been working within the

communities for a number of years. Building the capacity of implementing partners to implement the Speed School/Second Chance pedagogy is a primary focus of Luminos' work.

Luminos trains their partners through a two and a half week intensive session to deliver the model. The training includes child-centric activity-based learning, behavior management, lesson planning, child protection, and other topics that teachers will need to develop to be able to run a Second Chance classroom. Luminos also provides monitoring and evaluation, student assessment, child protection, teacher training, and ongoing classroom-based coaching. They support contextualizing the model, select out-of-school students that have the most to gain from the program, and select teachers. The Luminos Fund scaled its programs to Liberia, adapting 30% of the program to their local context, and 70% of the original model remains unchanged. NGO partners support monitoring classrooms through weekly support visits. Every week there is a "program supervisor" providing facilitators classroom-based coaching and feedback.

Local partners are also responsible for building relationships with local government schools – called "Link government Schools", in Liberia, for example, there is one Link School for every two Speed School classrooms. Local partners work with link government schools to facilitate children's transition to mainstream school upon completion of the 10-month program.

As a response to national guidelines during COVID-19, all schools in Ethiopia, Liberia and Lebanon were closed from mid-March and have remained through the summer. Program facilitators have been instrumental to Luminos' COVID-19 response effort, supporting the distribution of food relief and learning materials, ensuring that learning is taking place, and sharing the latest health guidance with families and community members.

Criteria	Category	Details
Preparedness of teachers to design and facilitate learning	Low	Teachers in Speed Schools are called "facilitators" – they are young people from the local community with a minimum education of grade 10. They go through a two and a half intensive week of training and receive ongoing refresher training and support during the year. Since the curriculum is broken into three phases: grades 1, 2, and 3. After each phase, all facilitators have refresher training to improve their skills for the next phase.
Availability and ability of parents or caregivers to	Available for guidance	The vast majority of Luminos parents and caregivers are illiterate, which limits the ability of parents to support home-based learning. Luminos mobilizes parents and

facilitate effective home-based distance learning	but not as an educator	communities to support their children's education both during and beyond the Speed School program. In Liberia, one parent/caregiver for every student is part of a "Parent Engagement Group (PEG)". PEGs, which are run by both the facilitator and the program supervisor, meet monthly. One of the most impactful PEG sessions is to invite parents to a class so that they can see for themselves the learning that is taking place in the classroom. This activity has improved parents' engagement and support for their children's education.

BUILDING RESILIENCE

To support Luminos children and families during COVID-19 school closures, Luminos provided its communities with handwashing stations and supplies, food relief, and vital health information and guidance regarding COVID-19. Given that only 12% of the population in Liberia has access to electricity, Luminos employed a low-tech approach to ensure that all students/families would be reached. Luminos leveraged its network of facilitators, who live within the same communities as Luminos students, to conduct socially-distanced home visits to check in on student health, nutrition, wellbeing, and learning. Paper-based worksheets, aligned to the program curriculum, were created and distributed to students. Facilitators also held micro-classes with 4-5 children/batch to ensure that students remained engaged in learning through the school closures. Given that 1 in 4 children did not return to school following the Ebola outbreak in Liberia, Luminos' primary aim through the school closures has been to ensure that children remain safe and connected to learning so that every child returns to school once schools reopen.

The Luminos Fund program uses a combination of formative and summative assessment to ensure that each student achieves learning benchmarks. Every fifth day of the curriculum is dedicated to assessment. Formative assessments include weekly individually administered numeracy and words per minute (wpm) tests to gauge students' literacy/numeracy levels. A diagnostic test at the beginning of the year, phase-level assessments at the end of each of three phases, and a government-designed Placement Test (which determines the grade in a government school that students transition into) are administered annually. In addition, Luminos conducts annual externally administered literacy and numeracy assessments to gauge student learning progress over the 10-month program.

IMPLEMENTATION CHALLENGES

Limited government capacity

To ensure program sustainability, Luminos' long term goal is government adoption. Limited government capacity can limit the government's ability to adopt the program in the long term. Luminos works to build government capacity by inviting government teachers, District Education Officers (DEOs), and the Ministry of Education officials to Luminos teaching training workshops and to observe the Speed School/Second Chance pedagogy in action during classes.

Limited capacity in link government schools

Another challenge is the limited capacity of the link government schools, which are vital to ensuring the successful transition and continued education for program graduates.

TAKEAWAY LESSONS

The demonstrated impact of Speed School has helped Luminos gain the support of the national government. In Ethiopia, Luminos is supporting the government to scale Speed School to all nine regions to address the significant number of students that are overage or out-of-school and also support the low learning outcomes in Ethiopia's primary schools. External research conducted by the University of Sussex shows that program graduates complete primary school at nearly twice the rate as their peers, have stronger academic outcomes across subjects and higher aspirations for the future compared to those who have not been through the program3 (Akyeampong, 2018).

The program has demonstrated the ability to reach learners who would otherwise drop out of the learning journey. Thanks to its model, 90% of Luminos students complete the program and transition to government primary schools the following year. Speed Schools are an ideal alternative education for those who have missed years of their schooling to catch up with their peers.

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[3] Akyeampong, 2018 https://luminosfund.org/wp-content/uploads/2018/11/Sussex-Evaluation-Full.pdf