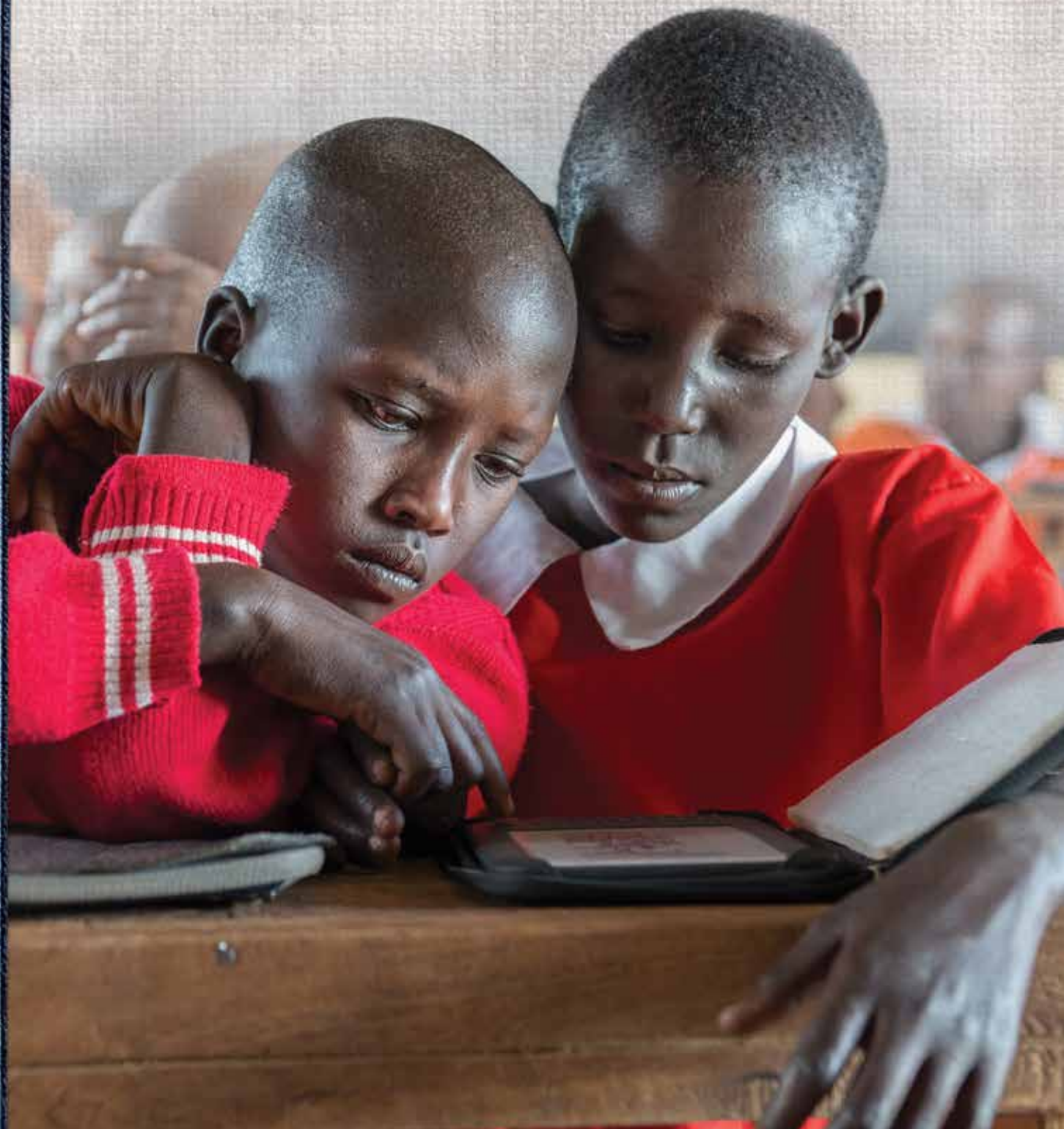
ALL CHILDREN READING:

A GRAND CHALLENGE FOR DEVELOPMENT

ROUND 1 REPORT

(2011-2013)



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EXECUTIVE SUMMARY OF COMPETITION

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Reading is the single most critical skill to learn in early education, the foundation for all future learning, and key to accessing paths to economic opportunity and full participation in society. Yet, in many countries, unacceptable numbers of children remain functionally illiterate after several years of formal education. Unless primary school systems can successfully build reading skills in children, increased enrollment will have little impact.

A GRAND CHALLENGE FOR DEVELOPMENT

Unless primary school systems can successfully build reading skills in children, increased enrollment will have little impact.

Launched in 2011 by the US Agency for International Development (USAID), World Vision and the Australian Government, All Children Reading: A Grand Challenge for Development (ACR GCD) is an ongoing series of grant and prize competitions that leverage science and technology to source and disseminate scalable solutions to improve literacy skills of early grade learners in developing countries. It is one of USAID's family of Grand Challenges for Development, which is rooted in two fundamental beliefs about international development:

1. **Science and technology, when applied appropriately, can have transformational effects**

2. **Engaging the world in the quest for solutions is critical to instigating breakthrough progress**

BARRIERS TO READING SUCCESS

All Children Reading: A Grand Challenge for Development focused on overcoming the following two critical barriers for success in reading:

- **Lack of On-Demand Access to Learning Materials:** To overcome barriers preventing easy access to knowledge—like limited mobility, poor infrastructure, and ineffective formal education settings—low-

cost approaches are needed to effectively disseminate high-quality educational materials and instruction for early grade reading.

- **Lack of Improved Education Data to Support Analysis, Transparency and Accountability:** A lack of quality data on education (e.g., student and teacher performance and absenteeism) prevents effective analysis of educational policies. The quality and accessibility of education data must be improved to facilitate data-driven decision-making and transparency across an education system.

This led to the development of two focus areas for the competition:

1. **Teaching and Learning Materials**
2. **Education Data**

The response to the Round 1 grant call resulted in more than 450 applicants, which led to 32 innovators being selected to receive two-year grants of up to US$300,000 each.

COMPETITION FOCUS AREAS

The ACR GCD Round 1 competition was designed to allow innovators to suggest their approach to addressing these two focus areas but also allowed for the submission of proposals that would have an impact on reading acquisition in other ways. Some of the most innovative submissions did not directly address the two stated focus areas. As a result, some innovators' approaches resulted in two emergent focus areas:

1. **Integration of technology into teaching and learning**
2. **Improved pedagogy and teaching practices**

Therefore, the competition funded promising ideas in these emergent focus areas as well.

32 INNOVATIONS PILOTED

The response to the Round 1 grant call resulted in full proposals of innovative approaches to improve early grade reading from more than 450 applicants, which led to 32 innovators being selected to receive two-year grants of up to US$300,000 each. Winning innovators included universities, local NGOs, international NGOs, and private sector businesses. Out of the 32 grantees, 10 had never previously received U.S. government funding, and 16 were from developing countries.

This diverse group of innovators implemented projects across more than 20 countries in the Caribbean, Africa, Asia, and the Middle East and made significant contributions to improving the teaching of reading to early grade students.

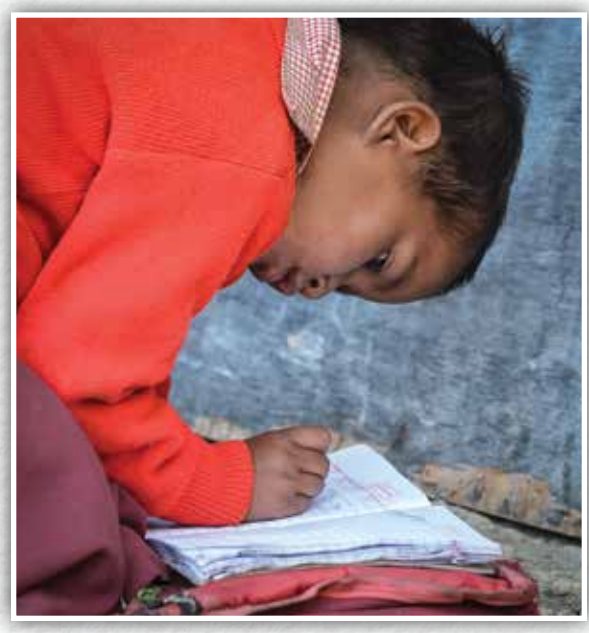
THE RESULTS

Among other grantee deliverables:

- A total of 814,616 teaching and learning materials were distributed to students. Many of these materials were in children's mother tongue, which is widely accepted as the best way for children at early ages to acquire literacy skills.
- Support provided to 3,057 schools to integrate information and communication technology (ICT), ranging from basic cell phones to computers or tablets, to assist with ongoing literacy efforts.
- 5,249 teachers, educators, and teaching assistants received training, along with 125 School Management Committees or similar structures.

SCALING

Scaling innovations was outside the purview of Round 1 of ACR GCD. Nonetheless, several projects with promising results began to be scaled during or shortly after the Round 1 competition.



LESSONS LEARNED

Among other lessons learned for subsequent grant and prize competitions, the ACR GCD Partners recognized the importance of a specific focus on disabilities, dedicating more resources and establishing concrete requirements for monitoring and evaluation, a greater emphasis on mother tongue instruction and reading materials, and building a wider network of research, technical and funding partners. These lessons learned were incorporated into ACR GCD's Round 2 grant and prize competitions, which was launched in 2014.

ALL CHILDREN READING:
A GRAND CHALLENGE FOR DEVELOPMENT

Launched in 2011, Round 1 of **All Children Reading: A Grand Challenge for Development** (ACR GCD) funded **32 grants** to improve early grade reading outcomes in developing countries. With a focus on teaching and learning materials as well as education data, grantees working across **22 countries** on **4 continents** delivered the following:

814,616 MATERIALS

provided for teaching and learning

5,249 TEACHERS

educators, and teaching assistants provided training

449,414 LEARNERS

received reading interventions at the primary level

125 PTAs

or similar school governance structures supported

3,057

schools supported in the use of **INFORMATION & COMMUNICATION TECHNOLOGY**

USAID FROM THE AMERICAN PEOPLE

World Vision

Australian Aid

FOCUS AREA 1:

IMPROVED TEACHING AND LEARNING MATERIALS

Children struggle to learn to read well, unless they have something to read that is appropriate and interesting to them. In addition, reading materials should be in a student's mother tongue and written at their skill level. In the beginning stages of learning to read, students need materials that are limited to the letters and letter combinations they have learned (referred to as decodable) and, once they have learned decoding, materials should be limited to a vocabulary and language complexity appropriate to their skill level (referred to as leveled). ACR GCD directly funded 32 organizations working to address this need in a variety of ways, as summarized below.

In Rwanda, many teachers feel uncomfortable reading aloud to students in an engaging manner. Drakkar's School-Based Mentors coached teachers to use participatory approaches to bring stories to life. Lower primary teacher Beatha Nikuze described the change: "I try to mimic the characters' voices. If it's a kid, I make a kid voice, if it is a cow, I make a cow voice. When I am doing this kids laugh and laugh. Seeing a teacher imitating a cow? Kids like that. They laugh at me at the same time [they are] learning, I like that, too." Pointing out the benefits, she continued, "With these new teaching methods, everyone is active. When I use it, everyone is engaged in the lesson. As long as you use this method, then the shy kids will also benefit from it. They end up raising their hands to answer on their own."

In Malawi, **FHI 360** and local partners produced a package of decodable short stories in the most common mother tongue and found that the proportion of parents reading to children increased 13%, and the proportion of parents who read to their children at least 30 minutes per day increased 15%. The project also trained teachers and community leaders to conduct workshops with parents or older siblings to adapt hand-written copies of the short stories into homemade books for their children or siblings. Through this process, the Timawerenga! ("We Can Read") project focused not only on creating materials but also on putting parents and household members at the center of the process. More than 45,000 community workshop participants created 88,074 decodable mini-books for students.

In Rwanda, **Drakkar Ltd.** encouraged student authorship of original stories in the national language, Kinyarwanda. Through ACR GCD grant funding, more than 3,000 stories were created by primary school students. In collaboration with the Rwandan Education Board and Education Development Center, Inc. (EDC), Drakkar also translated more than 50,000 storybooks into Kinyarwanda, which were printed and shipped to the project's 240 primary schools. To promote Rwanda's culture of reading and writing, Drakkar and partners then launched a national writing competition, Andika Rwanda, to inspire the

writing of stories and poems by Rwandans for Rwandan children. Prizes were awarded to both child and adult authors.

In Cambodia, **World Education, Inc.,** with its local partner Kampuchean Action for Primary Education (KAPE), developed a reading toolkit with interactive learning materials in Khmer, including stories, board games, and other materials. The project also developed one of the first-ever Khmer language educational mobile apps, which has 31 interactive units of phonemic skills for grades 1 and 2, each linked to the national curriculum. Struggling readers, supported by literacy coaches, accessed the reading toolkits and mLearning app, along with other interventions (literacy coaches, parental engagement and peer tutoring), comprising a Rapid Response System. Eight schools, reaching 2,352 children in Grades 1 and 2, were targeted with the intervention.

Kampuchean Action for Primary Education (KAPE) won an ACR GCD Round 2 grant to continue developing digital reading materials in Khmer. KAPE is adapting the Ministry of Education, Youth, and Sport Grade 2 and 3 readers into electronic formats with interactive features. The e-readers integrate digitized testing exercises that evaluate the child's reading level and provide teachers with a valid student assessment.

Other organizations that received ACR GCD grants in Round 1 to address mother tongue reading materials included the following:

- In Ghana, the **Olinga Foundation for Human Development** trained teachers to use a syllabic phonics approach that ensured children learned to read in their mother tongue first, then learned to read in English. The approach targeted students in upper primary grades who had not yet mastered basic literacy. Olinga Foundation trained 447 teachers, started reading clubs in 25 schools, and distributed more than 15,000 literacy primers in four mother tongue languages.

- In Zambia, the **Lubuto Library Project** developed a set of 101 reading lessons in seven mother tongue languages and then developed computer and mobile phone applications that provided off-line audio-visual learning, including a feature to practice reading. More than 5,280 primary learners benefitted from the interventions.

Reading materials should be in a student's mother tongue and written at their skill level.

- In Bangladesh, **ECo-Development** created reading materials in eleven mother tongue languages spoken by minority groups in hill districts, which led more than 90% of teachers to say they felt more comfortable integrating local language reading in their classrooms.

- In Haiti, **Friends of Matènwa** facilitated student creation of mother tongue books and identified the most popular books to be printed and packaged as part of a collection of 50 student-authored and -illustrated books in Haitian Creole, French, and English. In partnership with A Connected Planet, the stories were made into digital books, which included letter and word game applications and voiceovers in the three languages. Friends of Matènwa distributed more than 14,000 printed copies of the books through La Gonâve school system.

- In Georgia, the **Center for Civil Integration And Inter-Ethnic Relations** (CCIR) created 416 leveled e-books in Georgian-Azerbaijani and Georgian-Armenian. CCIR also created a trilingual electronic dictionary containing 7,000 of the most frequent lexical units, software that aligns vocabulary to reading levels, and an e-module for organizing words by their frequency of use. The project trained more than 400 teachers and enhanced the literacy skills of approximately 30,000 ethnic minority students.

Assessment tools that teachers and others can easily use are vital to helping them quickly identify which students are struggling to read and in which areas they are struggling to help teachers tailor interventions to each child's needs.


-ব্যঞ্জনবর্ণ-Consonant
গাঙে
ঘাহাগ্রী
ঙা
জাবংছৈ:
এগ্রা
দারইংগক
নাগ্রী
দাদৈ
নাঙে
ভাদুখ্যই
বাগুন
মা
ওয়া
লাগ্রী
আ
USAID
ECo
© ECO DEVELOPMENT

FOCUS AREA 2:

IMPROVED EDUCATION DATA

Parents, teachers, and administrators need data and information for timely assessment and decision making. Too often, the end-of-term exam is the first time data is collected and teachers learn which students are struggling and in which areas they need additional support. However, by that time some students have failed to master foundational skills and fallen behind their peers. Assessment tools that teachers and others can easily use are vital to helping them quickly identify which students are struggling to read and in which areas they are struggling to help teachers tailor interventions to each child's needs. Several ACR GCD-funded projects made student assessment and improved use of data a major focal point of their work.

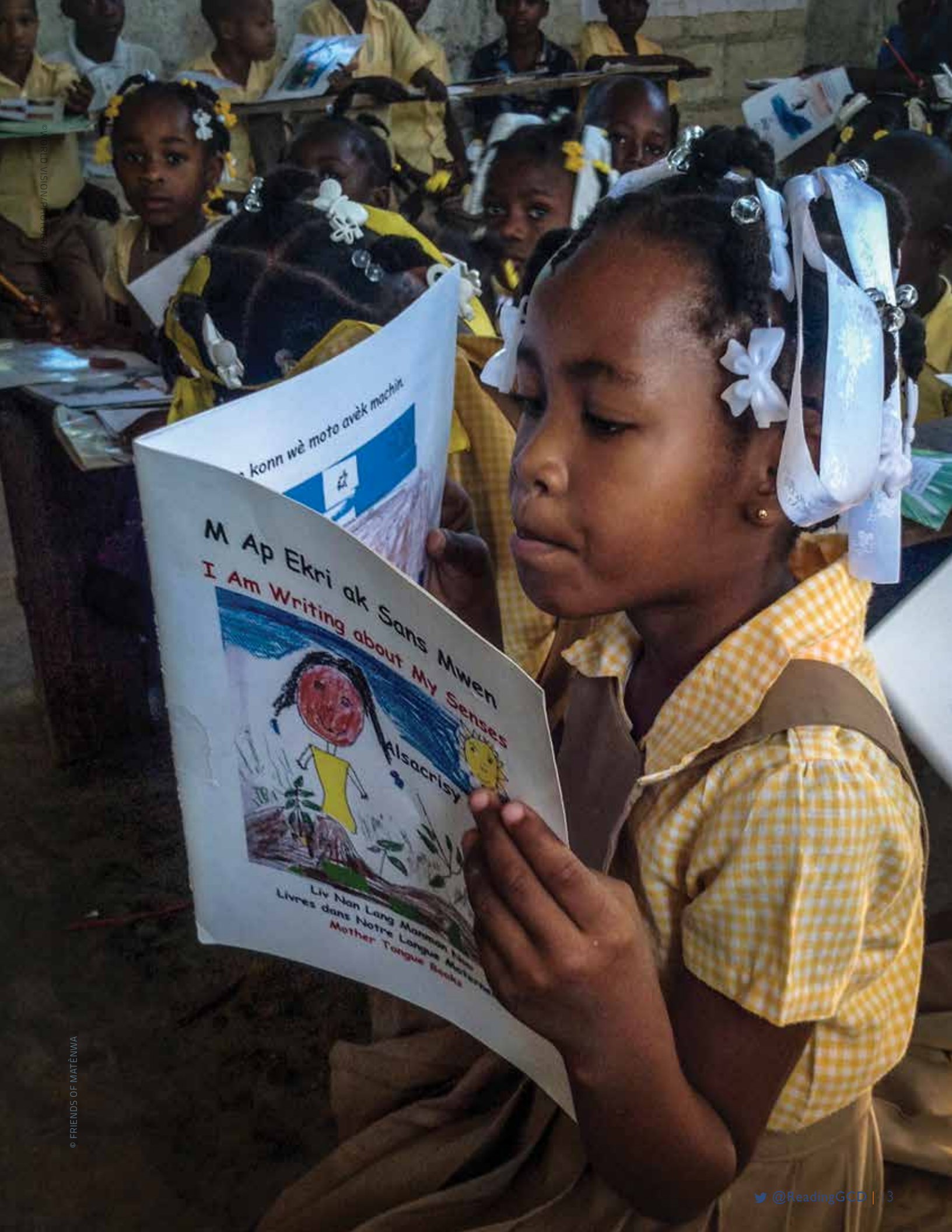
"DataWinners modernized our data collection. The primary School Directors now submit their data more quickly and with fewer errors using their own mobile phones. The Ministry has plans to use DataWinners to collect other education data in Senegal."

~ Amadou Lamine Ndiaye, Data Administrator, Ministry of Education, Senegal

In Senegal, Malawi, and Rwanda, **Human Network International** introduced a cloud-based system for data collection, analysis, and dissemination. The DataWinners software allowed organizations to transform paper forms into digital questionnaires so that data can be submitted in seconds using SMS, smartphones or the Internet. In Senegal, directors of 9,500 schools learned how to submit students' standardized test results via SMS using mobile phones. As a result, the data was inexpensively and quickly collected and available for analysis. The standardized test results were easily accessed by data administrators and regional and district officials for verification. By September 2014, local school district officials recorded data for 658,133 student tests.

Following Round 1, World Education, Inc. won additional funding through the DAI-administered and USAID-funded Development Innovations Ventures to develop the pencil-and-paper benchmarks into an app. The app increases uniformity in test administration, reducing scoring error and bias, and automatically compiles student scores to quickly identify struggling students.

In Cambodia, **World Education, Inc.** and the Kampuchean Action for Primary Education (KAPE), developed an easy-to-use benchmark assessment system that identifies which students are falling behind. The assessments, administered every four to six weeks, are keyed to interactive learning activities that help students master skills. The system helps teachers identify appropriate learning materials and literacy games and direct them to the specific assessment used to test the skill. The benchmarks also link closely to the curriculum and give teachers the lessons and page numbers in readers that correspond to the specific literacy skill. Grade 1 and 2 benchmarks have been rolled out to government schools nationally (see *Innovation Scaling* for more information).



Typically, schools waited 12 months to receive their national test scores. Education Development Center's innovative SMS and database system reduced the wait time by six to eight months.

In the Philippines, **Education Development Center**, Inc. (EDC) used low-cost mobile phone technology to enable time-efficient transmission and analysis of student National Achievement Test (NAT) scores at the school level. This helped school leadership become better informed about the relevance of NAT data in guiding decisions about addressing student learning gaps. School administrators and teachers also received pre-formatted text messages that provided simple analysis of their unique NAT results in Grade 3 reading. The project initially served 900 teachers in 50 schools in Mindanao. Initial results were so promising that the Department of Education requested that the program be scaled throughout other USAID-funded education programs, reaching more than 1,200 schools (see *Innovation Scaling* for more information).

Several projects utilized ACR GCD grants for research:

- In Ethiopia, **Initiative Africa** investigated the role that action research could play in helping teachers understand how reading assessment results could be used to improve student learning. Through the project, 124 teachers received training in reading instruction and 16,000 children's book titles in Amharic and a mother tongue language, Afaan, were distributed. Through the action research process, teachers began to see that reading assessment results can be used to improve student learning, and action research and feedback/corrective action are powerful methods to accomplish that.

- In India**, American Institutes for Research** examined the process of acquiring literacy in multilingual environments by investigating how biliteracy skills are acquired. The project sought to determine if there was a threshold point of mother tongue reading outcomes at which children were more likely to transfer their knowledge to English for successful reading outcomes in both languages. The study, which included about 550 children from 13 schools, found that decoding in a mother tongue was one of the strongest independent predictors of English decoding. The research showed that children who can easily and accurately "sound out" approximately 60% of words in a grade-appropriate alphasyllabic language reading test are much more likely to succeed when formal English instruction begins than a child who scores lower than this threshold.

Other projects developed assessments and brief screening tools to bolster their interventions:

- In Ghana, **Open Learning Exchange** created a tool modeled on RTI's Early Grade Reading Assessment (EGRA) to conduct a five-minute assessment.

- **YMCA Senegal** partnered with the Education Development Center, Inc. to develop individually-administered assessments that included letter reading, high frequency word reading, and passage reading. This assessment was used to place students in leveled reading groups.

- In India, **Pratham Education Foundation** modified an existing assessment tool to produce a new tool based on the Programme for International Student Assessment (PISA) scale, which provided a more comprehensive picture of children's abilities to comprehend and write text. This facilitated placement of students into groups according to ability, rather than age or grade-level, and helped group leaders focus on teaching the needed skills.

- In India, **Pragya** developed periodic, holistic assessments to track progress on education indicators and link them to processes for providing feedback to teachers and other stakeholders to support improvement. Teachers reported improved understanding of student learning outcomes and appreciated the holistic feedback focused on literacy, numeracy, cognitive abilities and social maturity. The project reached 330 schools with 6,972 children across 11 districts.

© PRAGYA

- In India, the **Sesame Workshop Initiatives India Pvt. Ltd.** became one of the first organizations to adapt and contextualize the EGRA into Hindi. The assessment tool was field tested, revised, and loaded onto tablets, using RTI's Tangerine software.

- In Sri Lanka, **Save the Children** created a learning and cognition assessment tool to screen students, which identified students who were having trouble learning to read and the learning challenges that were causing underperformance. More than 500 Grade 3 students from 30 schools were screened.

- In Armenia, the **Step by Step Benevolent Foundation** created an emergent literacy assessment tool that assessed skills related to concepts about print, alphabet knowledge, and phonemic awareness. This was

complemented by an informal reading inventory, which assessed word recognition, reading comprehension, listening comprehension and fluency rate. Classroom observational tools were also developed for coaches and teachers. The project supported students and teachers by creating nearly 6,000 teaching and learning materials, including leveled texts for six reading levels (pre-primary through grade 5).

EMERGENT FOCUS AREA 1:

INTEGRATION OF TECHNOLOGY INTO TEACHING AND LEARNING

ACR GCD innovators employed a variety of approaches that use ICT to promote literacy. Some innovators focused primarily on the school setting, while the work of others addressed in-school and out-of-school settings, as well as other non-formal learning contexts. Basic mobile phones were used to share reading materials and track data, teachers became proficient with using projectors and laptops to enliven their lessons, and new literacy software supported lesson plans development. Technology was integrated into learning outside the traditional classroom through educational television and radio, same language subtitling, radio-delivered resources for nomadic groups, and more.

In Ethiopia, **Whiz Kids Workshop** developed 32 reading-focused TV episodes, an episode for each of the 32 root forms of the Amharic alphabet. The *Tsehai Loves Learning* series promotes early childhood development using puppetry, computer animation and songs revolving around the character of a young, inquisitive giraffe, Tsehai, who tackles learning problems and promotes life lessons. Episodes were broadcast nationally on the government-owned television network, reaching an estimated 5 million children. The series is also available on DVD. Whiz Kids Workshop also worked with 20 randomly selected low-resource, government-run schools in Addis Ababa, training teachers to integrate the *Tsehai Loves Learning* reading program in grade 2 classrooms.

In addition to specific literacy skills, *Tsehai Loves Learning* episodes promote gender equality and respect for persons with disabilities.

© WHIZ KIDS

In Ghana, the **Open Learning Exchange** (OLE) used a technology-based approach to improve access to reading materials. Each school received a low cost, digital library housed on Raspberry Pi, a credit-card sized computer that acts as a server. The content included alphabet songs, oral and written passages, vocabulary games, comprehension passages with questions and answers, and resources for teaching phonics. Assessments showed that students' reading test scores went up from 12% to 60% after the intervention, compared to endline scores of only 32% at schools that did not receive the intervention. Ten schools and 6,633 students benefited from the project.

© WORLDREADER

Abigail, a student in Primary 4, had never owned a book until she received an e-reader. Through Worldreader's iREAD2 program, she has access to hundreds of digital books. Now she has incorporated reading into her family's daily routine—after school, she helps her family on the farm, and then she reads to her younger siblings in the evening. If her siblings don't understand what she reads to them, Abigail patiently answers any questions they have. She says that explaining the stories to her siblings has helped her gain a better understanding of the stories herself. Abigail has read over 75 books on her e-reader, and says that having the device has improved her ability to study and learn. She is one of the top students in her class.

In Ghana, **Worldreader's** iREAD2 project distributed Kindle eReaders containing about 240 learning materials, in English and Twi, to 574 students. Worldreader noted an increase in school enrollment due to excitement around the e-readers, and reading scores improved compared to control schools. Students receiving e-readers reported reading more books, with e-reader students completing 2.89 books/day compared to .61 books/day for control students.

The Molteno Institute for Language Literacy won a 2014 UNESCO Confucius Prize for Literacy for its Bridges to the Future Initiative. UNESCO noted, "This multilateral, collaborative partnership has led to the successful development of the first substantive literacy programme in the African region to use a multi-lingual mother-tongue literacy program employing ICT."

In South Africa, **Molteno Institute for Language Literacy's** Bridges to the Future project used a unique ICT-based, phonics-enriched instructional platform to provide multilingual instruction in Grades 1-2. The project developed 40 grade 1 lessons in Sepedi, Tshivenda, Xitsonga and English. Another 60 Grade 2-3 lessons were developed in the same four languages. Fifty-two schools participated in the project in Limpopo province, with 13,368 primary school students receiving the interventions.

In Uganda, **Urban Planet Mobile** developed, piloted and evaluated a literacy intervention that sent text messages to parents to encourage them to engage their primary-school aged children in literacy skill-building activities outside of school hours. On a daily basis, the program gave parents simple lessons in a format they could understand. The SMS-based program lasted 91 days and had 158 parent-child pairs participating in the project.

In India, **PlanetRead** used Same Language Subtitling (SLS) of Bollywood music videos to reinforce reading skills among emergent and early readers with the support of word-sound highlighting. Given the popularity of Bollywood songs in India and the high penetration of television, PlanetRead aims to make reading inescapable. The project calculates that 3.4 million children in Maharashtra had direct exposure to SLS-movies during the project.

After learning about PlanetRead's Same Language Subtitling, fellow Round 1 grantee Whiz Kids Workshop added subtitles to its educational television broadcasts.

In India, **Sesame Workshop Initiatives India Pvt. Ltd.** (SWI) developed and introduced three progressive reading cycles (of 13 weeks each) that relied on Hindi-language learning tools. Materials focused on the Indian version of Sesame Street, known as *Galli Galli Sim Sim*. Reading materials included five storybooks per child, reading and activity sheets and workbooks, and a class storypond (a large vinyl mat with representations of people and objects to engage children in pre-literacy activities like vocabulary building and sentence and story construction). The project included several "low-tech" learning approaches. A "phonics phone" provided to each child, serves as a listening device—children speak quietly into one end and hear their amplified voice through the other end. This enables a classroom of students to quietly read aloud to themselves. The project also distributed audio players with pre-recorded stories and learning materials on an accompanying thumb drive. Audio narration by their favorite characters encouraged children to read along in their story books. A subset of schools received digital learning content, including digital games deployed on low-cost tablets, and audio-visual content deployed on pico projectors. While scores improved in both low-tech and digital groups, students in schools receiving the digital intervention performed considerably better. The project served 375 government-run primary schools in three districts of Bihar, reaching 750 teachers and 30,000 children.

Sesame Workshop Initiatives India was one of the few Round 1 innovators to also be awarded a Round 2 grant. They are working on a project in Maharashtra State to provide families with mobile learning apps based on the Marathi-language version of Galli Galli Sim Sim.

© SAVE THE CHILDREN MALAWI

Other grantees with a major focus on technology included:

- In South Africa, **Georgia State University** (GSU) created a professional development program that included a research-based, technology-supported reading curriculum that enhances teachers' pedagogical practices. Teachers began to share pictures and offer descriptions of classroom activities involving technology or strategies that were learned at the workshops. Social media became an unexpected, positive, and effective avenue for communication between teachers and trainers. The project benefitted more than 200 early primary learners in the Western Cape of South Africa.

- In South Sudan, **Across Radio** promoted mother tongue reading instruction for Primary 1-3 students by using portable audio players designed for use by untrained teachers or community members. In conjunction with a set of mobile books, the mother-tongue recordings can function as a literacy tutor for children in school or for out-of-school children who listen to the recordings in community group meetings. A total of 37,000 books, alphabet charts, and flashcard sets in Bari and Dinka were printed. More than 22,000 students benefitted.

Conflict erupted in South Sudan in December 2013 in the midst of the Across Radio project. In Bor County in Jonglei State, nearly all government schools closed for months. Most of the 16 nomadic cattle camps served by Across Radio in Bor were displaced. The portable technology proved useful for education in emergencies. When Across Radio located the displaced cattle camps months later, reading groups had continued the literacy courses.

- In Ghana, **Perkins International** collaborated with and trained local educators to teach children who are blind/low vision in an inclusive classroom setting and to engage families and communities to support students and strengthen gains made in the classroom. Perkins also distributed assistive technology literacy kits that included the appropriate combination of braille writers and low vision devices tailored to the needs of each student and ensured braille writers could be fixed through the establishment of a local brailler repair system. The project benefitted about 300 students in three target schools, trained 94 teachers, and indirectly benefitted an additional 3,850 students.

In ACR GCD's Round 2, there is an expanded focus on enhancing learning outcomes for children with disabilities including grant awards and a planned prize competition.

- In Haiti, **École Supérieure d'Infotronique d'Haïti** introduced interactive whiteboards into classrooms to teach Creole language reading lessons. The project helped enhance communication between students and teachers, eliminate social barriers such as limited local language content, and improve teachers' ability to incorporate technology into the classroom.

EMERGENT FOCUS AREA 2:

IMPROVED PEDAGOGY AND TEACHING PRACTICES

Teachers often do not receive training on how to teach reading. Even when they have, it is usually a one-time, short-term training that offers little chance to practice teaching skills. Several ACR GCD innovators concentrated on improving how reading is taught. Grant support enabled teachers to move away from whole-class approaches to provide more tailored instruction to individual learners at their current skill level. Several innovators found ways to integrate leveled reading groups, both during and outside of the school day, to give students extra time to practice at the level most appropriate for them. Several innovators were able to integrate leveled reading groups by introducing phonics-based and interactive approaches.

Worldreader partnered with fellow Round 1 grantee, Olinga Foundation for Human Development, to train teachers to use e-readers as part of effective literacy instruction methods. Workshops and refresher trainings reached teachers and head teachers as well as circuit supervisors and directors from the District Office of Ghana Education Services.

In Ghana, **Worldreader** divided students into three groups based on reading level, so that separate activities in each group could be geared towards ability level. These students performed much better than students who were receiving the same instruction but were not broken into groups by reading level, which ensured more targeted support to low performers through specific lesson plans, smaller groups, and increased volunteer presence. More than 500 students were directly served by the project.

YMCA Senegal partnered with Education Development Center, Inc. (EDC) to support reading groups led by local youth volunteers. The approach starts with a screening assessment that creates emergent, beginning and transitional reading groups. A total of 2,383 students participated from 30 schools. Students who participated in the intervention exhibited dramatically larger gains in their fluency and reading comprehension compared to their comparison group.

ACR GCD grant recipients helped teachers move from whole-class approaches to more tailored individual instruction to meet current skill levels.

In India, **Pratham Education Foundation** supported reading camps for students grouped by reading skill, rather than age and grade. These students received follow-up support from volunteer tutors and reading periods in class. The project evaluation found that the combination of the three interventions had a strong effect on the reading and comprehension levels of students. Pratham targeted Grades 3-7 in 450 government-run schools in Maharashtra state, reaching 11,000 students (see *Innovation Scaling* for more information).

Other ACR GCD grantees working to improve teaching practices included:

- In Kenya, the **University of Nairobi's Department of Educational Communication and Technology** (COMTECH) added early grade reading content to its early childhood teacher education programs and follow-up coaching. Teachers successfully adopted a more participatory approach, including an emphasis on stimulating creative thinking. Nearly 300 teachers earned certification as reading teachers, which benefitted 17,800 students.

- In Malawi, **Save the Children** developed a program that accelerated children's acquisition of reading through cost-effective, community-driven extra-curricular reading activities that used low-cost community-generated reading materials. Key to the project's success was its teacher training that focused on the five core reading skills. Teacher training was complemented by after-school reading camps led by community volunteers—about 100 reading camps were established, which reached more than 5,700 children. The project also established a reading radio program to broadcast reading lessons and encourage parents to enroll their children in the reading camps.

- In Somalia, the **Africa Educational Trust** implemented effective reading programs in primary grades 1 and 2 by increasing teacher/student contact hours, ensuring the availability of textbooks, and training teachers how to effectively teach reading. Forty-eight schools participated, benefitting about 12,000 students.

- In Timor-Leste, **The Asia Foundation** developed workshops that introduced parents and preschool educators to kits that include literacy games that encourage questions, storytelling, and acquisition of vocabulary. An important outcome was that fathers reported increased activeness, confidence, sense of responsibility, and pride in being engaged in their children's education. The project trained 132 parents and educators from all 13 Timor-Leste districts.

LITERACY INNOVATORS AT WORK
GRANT COMPETITIONS

ROUND 1 *(2011-2013)*

1. Across Radio
2. Africa Educational Trust
3. American Institutes for Research
4. The Asia Foundation
5. Center for Civil Integration and Inter-Ethnic Relations
6. ComTech University of Nairobi
7. Drakkar, Ltd.
8. Eco-Development
9. Ecole Supérieure d'Infotronique d'Haïti
10. Education Development Center, Inc.
11. FHI 360
12. Friends of Matènwa, Inc.
13. Georgia State University
14. Human Network International
15. Initiative Africa
16. Lubuto Library Project, Inc.
17. Molteno Institute for Language and Literacy
18. Olinga Foundation for Human Development
19. Open Learning Exchange (OLE) Ghana
20. Perkins International
21. PlanetRead
22. PRAGYA
23. Pratham Education Foundation
24. Save the Children Malawi
25. Save the Children Sri Lanka
26. Sesame Workshop Initiatives India
27. Step by Step Benevolent Foundation
28. Urban Plant Mobile
29. Whiz Kids Workshop
30. Worldreader
31. World Education, Inc.
32. YMCA Senegal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GEORGIA
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INNOVATION SCALING

An unexpected result of ACR GCD Round 1 investments was that some grant activities were scaled during or shortly after the competition. Methods of scaling included government partnership, integration with other USAID-funded programs, and expanded funding from NGOs. This provided evidence that innovations funded through ACR GCD can be scaled for greater reach and impact.

The Philippines: Education Development Center, Inc.'s (EDC) innovation to share national English reading test results via SMS was piloted in Mindanao. The original target was 900 teachers in 50 elementary schools, but scaling through a complementary USAID-funded program enabled it to serve 1,238 elementary schools by the end of project.

With the support of the Philippine's Department of Education, the ACR GCD-funded data-sharing intervention was integrated into EDC's larger USAID-funded *Basa Pilipinas* project in Mindanao. *Basa Pilipinas* ("Read Philippines") is the USAID flagship basic education project in support of the Philippine Government's early grade reading program and aims to improve the literacy of 1 million early grade students.

- EDC began scaling the ACR GCD intervention via *Basa Pilipinas* interventions in Mindanao.
- EDC oriented more than 1,100 Grade 3 teachers from La Union and Cebu provinces (other *Basa* target provinces) to the data-sharing system. Teachers learned how to set up accounts and access the test reporting system by SMS.
- During the November 2014 close-out of the ACR GCD grant, senior Department of Education officials in Manila requested that the technology be incorporated into the *Basa Pilipinas* Year 3 work plan.

This rapid growth illustrates the potential for promising innovations to achieve scale by integrating into other projects with similar goals.

Cambodia: World Cision Cambodia closely followed World Education Inc.'s *Total Reading Approach for Children (TRAC)* project as several TRAC schools were intervention and control schools supported by World Vision's Area Development Programs (ADP). Impressed by the results, World Vision Cambodia opted to scale the program over a three-year period, using its own funding. The project, called TRAC+, is being implemented via a subcontract to World Education, Inc. and is scaling to 138 primary schools across 13 of World Vision's ADPs, where it implements long-term holistic development interventions.

- TRAC+ is expected to benefit 15,000 children in grades 1-3 and 5,000 in grades 4-6.

- World Education is also developing benchmarks linked to the Grade 3 curriculum.

World Education collaborated with the Cambodian Ministry of Education, Youth and Sport in the development of the benchmark assessment system for Grades 1-2, which have been endorsed for national use.

- In the 2015-2016 school year, Grades 1-2 benchmarks were rolled out nationally to all government schools.

- Once Grade 3 benchmarks are fully developed as part of TRAC+, World Education anticipates they will be rolled out nationally as part of the 2016-2017 school year.

India: Pratham Education Foundation's project, focused on periodic learning camps outside of school as well as equipping teachers to integrate reading into the school day, served 350 government schools. Because of its close collaboration with local and regional educational authorities, the project soon began to impact government policy and practice.

- In 2013-14, soon after the launch of their ACR GCD project, Pratham was invited to join a state-wide reading improvement project through collaborative efforts started in 3,400 schools across 35 districts in Maharashtra state.

- The success of the collaboration led to state-wide scaling to all schools in Maharashtra, impacting an estimated 7 million children in government schools, according to Pratham's final report.

MONITORING AND EVALUATION

Consistent with the Grand Challenge model, ACR GCD Round 1 engaged non-traditional solvers, organizations at varying levels of maturity, in the quest for innovations to improve global literacy. For the majority of these innovation projects, especially those still in the proof of concept stage, rigorous impact evaluations were not feasible. At the proposal stage, grantees included monitoring and evaluation (M&E) plans with self-identified indicators that were tracked and reported on for the life of their projects. A challenge faced by ACR GCD during Round 1 was the diversity of M&E methods employed by the grantees, which complicated the analysis of Round 1 results as a whole.

As a post-competition examination of the rigor of M&E for Round 1 grants, NORC, at the University of Chicago, evaluated the research methodology of about half of the Round 1 grantees. The review found that the research conducted by these Round 1 grantees does not allow for strong attribution of changes in reading outcomes to the specific interventions. The report stated, "Common threats to internal validity among the Round 1 grantee evaluations include the lack of a proper counterfactual, sample selection bias, attrition, contamination, and lack of data or analysis on whether and how other observable or unobservable characteristics might have influenced reading outcomes."[1]

Scaling innovations was outside the purview of Round 1 of ACR GCD, as mentioned earlier. Therefore, additional research would be necessary to generalize the results of these evaluations to a population that would be targeted by any scale up of the intervention. "Common threats to external validity among Round 1 grantee evaluations include: non-representative sample and implementation that did not occur as originally planned."[2]

Of the studies that employed randomized controlled trials, most did not test for balance between treatment and control groups at baseline. Since the innovation grants were small, sample sizes generally were not large enough to avoid selection bias, in both treatment and control groups. Again, additional research is necessary to generalize these findings to a larger population.

1 NORC at the University of Chicago. "All Children Reading Round 1 Summative Report: Excerpt." March 2015. P.1.
2 Ibid, p. 1.

LESSONS LEARNED

The lessons learned from Round 1 shaped the focus and process of the All Children Reading: A Grand Challenge for Development's Round 2 competition in several ways, including:

- **Intentional targeting of vulnerable groups.** Round 1 had only one grantee focused on disability. Round 2 is focusing a subset of the grant competition, as well as a prize competition, specifically on improving reading outcomes for children with disabilities. Round 2 is also increasing the focus on children affected by crisis and/or conflict through two prize competitions.

- **Standardized monitoring and evaluation.** ACR GCD Round 2 emphasizes greater uniformity and best practices in monitoring and evaluation. Round 2 requires all innovators to conduct a baseline and endline Early Grade Reading Assessments (EGRA) to better measure outcomes. An external firm specializing in educational assessment has been contracted to assist grantees in designing their M&E frameworks, selecting comparison groups, and implementing the EGRA. In addition, research studies, landscape reviews and other research agendas are being supported.

- **Deepened focal tracks and technology integration:** The focal tracks identified for Round 1 were quite broad and in Round 2, ACR GCD specifically identified those target tracks which could better lend themselves to technology-supported interventions and common baselines of evaluation.

- **Partnership building.** Through Round 1, the ACR GCD partners laid the groundwork to engage broader collaboration. One of the four components of Round 2 is developing partnerships with other bilateral and multilateral donors, private sector corporations, universities, and NGOs. This has resulted in prize competition collaboration with UNHCR, mobile network operator Orange, Intel, Arizona State University, the Norwegian Ministry of Foreign Affairs/Norad, and others as well as co-funding research with Institute for Development Research Center, and Mobiles for Education Alliance members.

CONCLUSION

Round 1 of All Children Reading: A Grand Challenge for Development uniquely engaged a wide range of solvers and demonstrated the innovative possibilities to improve literacy skills of early grade learners in developing countries. Innovations made significant contributions to increasing the availability and number of mother tongue materials for early grade readers. Piloted solutions also demonstrated ways appropriate technology can be effectively integrated into literacy instruction both inside and outside the classroom. Importantly, the lessons learned from Round 1 informed the design of Round 2, which deepened ACR GCD's approach on mother tongue instruction and materials, family and community engagement, and improving reading outcomes for children with disabilities. It also informed the Round 2 research agenda, focusing on sourcing technology-based innovations, and highlighted the importance of engaging the capacity of more partners in ACR GCD's quest for innovative solutions to increase reading outcomes for early grade students in developing countries.

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