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Being able to read and write is the most basic foundation of knowledge accumulation and further skill development. Without literacy, there can be no quality education. Presently, 1 in 5 adults is illiterate, two-thirds of whom are women. At the current pace, over 700 million adults worldwide will still not be able to read in 2015. In global education discussions, literacy rates are most often reported for adolescents and adults, an *ex post facto* measure of the failure of primary school systems to impart basic skills in the most formative schooling years. It is clear that much needs to be done to provide these adolescents and adults with access to successful literacy programs. But we must also ensure that children with access to schooling are not growing up to be illiterate.

Children enrolled and regularly attending school for the first three grades should be able to read basic text. Evidence shows that acquiring this ability to read sets students up for further learning, enabling them to read and comprehend progressively more advanced materials and acquire additional knowledge.

As explained in our <u>earlier policy brief</u>, data from numerous countries show that children in school are failing to acquire the most basic of skills, measured as the ability to read words of connected text. We called for a global paradigm shift that places learning at the center of the global education discourse. This shift requires the major bilateral and multilateral actors to refocus their own efforts on supporting learning in the classroom and measuring progress by increased learning outcomes. There has been some progress here, such as USAID's goal to improve reading skills for primary school children in its new education strategy and the World Bank's Education Strategy 2020, *Learning for All: investing in people's knowledge and skills to promote development*.

This shift of focus also requires substantial changes on the ground, including encouraging and supporting a culture of literacy and learning at the community level. For example, Gove and Cvelich highlight some main factors contributing to low reading levels, including a lack of support for teachers, limited instructional time, poorly resourced schools, the absence of books in the home and policies regarding the language of instruction. In Mali, a recent survey found that three-quarters of grade 2 students did not have a textbook and no student had supplementary reading books at school. In The Gambia, the vast majority of students who demonstrated a level of reading fluency said that they had books at home. Globally, in both developed and developing economies, a relatively consistent proxy for "parental commitment to education" is the number of books in the home. A 20-year study of 27 countries found that children growing up in homes with many books get three years more schooling

¹ UNESCO. (2010). EFA Global Monitoring Report 2010: Reaching the Marginalized. Paris: UNESCO.

² Gove, A., and P. Cvelich, (2010). *Early Reading: Igniting Education for All. A report by the Early Grades Learning Community of Practice*. Research Triangle Park, NC: Research Triangle Institute.

³ Evans, 2010

than their peers who come from homes without books.⁴ There is no one-size-fits-all solution to improving the quality of education in developing countries. However, there is plenty of room for innovation to address some of the biggest barriers to improving reading levels, including availability of appropriate reading materials at school and at home. In disadvantaged communities, where there are relatively few books and even fewer books in local languages and that deal with culturally-relevant topics, innovation is needed to help develop a robust culture of literacy.

One such innovation is <u>Worldreader.org</u>'s *iRead* pilot in Ghana, which has put hundreds of e-readers into children's hands. A lot has been written on similar classroom technology in developing countries, which cite examples of supplying hardware to schools without plans for its educational use, promoting technology from a single company, insufficient planning for sustainability, and inadequate investment in time to train teachers and administrators who will be the purveyors of the technology initiatives in the classrooms.⁵

However, the important difference between this e-reader program and similar projects focused on putting computers in classrooms is that e-readers usually operate on the mobile phone system, which has exploded in developing regions over the last few years. In Kenya, more than 80 percent of the population has mobile phone network coverage and more than half of the population has purchased a mobile phone subscription. The GSM compatibility of e-readers allows for downloading of new reading materials wherever there is mobile phone coverage and sufficient funds available to purchase new texts. E-readers also have relatively low levels of energy consumption (a one-hour charge can last more than a week). In addition to gaining the support of community leaders and teachers from the beginning, the pilot began with intense in-service training for teachers in how to use e-readers to complement their existing curricula. While Worldreader.org has not solved all of the challenges posed by technology initiatives in education, it has taken some important steps toward addressing the barriers to project success. ⁶

The organization has also tackled specific challenges that are impeding reading success in the early primary grades:

 Additional support for emergent readers. E-readers provide additional support to teachers in teaching children how to read, an important supplement in primary school classrooms in lowincome countries where there may be 40 or 50 students per teacher. In such cases, students are required to work independently or in small groups while the teacher is working with other

⁴ M.D.R. Evans, Jonathan Kelley, Joanna Sikora, Donald J. Treiman. "Family scholarly culture and educational success: Books and schooling in 27 nations." *Research in Social Stratification and Mobility*, 2010; DOI: 10.1016/j.rssm.2010.01.002

The study controls for education levels, occupations, and socio-economic status of the parents.

⁵ For example, Trucano, M. "Worst practice in ICT use in education," 2010, accessed at http://blogs.worldbank.org/edutech/worst-practice

⁶ Some of the core challenges identified by Worldreader.org and others include the upfront costs of e-readers, need for on-going training and support to teachers, students, and communities, buy-in of school systems and local governments to deploy technology and content, insufficient relevant materials in e-book format, and consistent access to electricity and mobile networks.

students. The text-to-speech feature on e-readers can read books aloud to the student, exposing her to the written text as she hears it read aloud. Students can also use the downloaded dictionary while reading to look up unfamiliar words and continue to read without adult assistance.

- Students and teachers get to choose. While paper books donated by schools, libraries, and individuals from around the world have helped to get written materials into low-resource schools in developing countries, e-books allow students and teachers in developing countries to choose which books they teach and read. Although choices now are restricted by the dominance of English in the e-book market, the potential for the expansion of the digital market represents a step toward greater agency for teachers and students.
- Working with local publishers to increase access to books for emergent readers. Children learning to read need access to the types of books that engage their imagination and spark their interest. For children learning to read, this means stories with simple sentences in their local language. Yet, traditionally children's books are not a good economic bet for publishers, particularly in developing countries. The high cost of printing the books are not recouped since so many families cannot purchase copies for their own household use. However, distributing books in e-reader format will actually allow publishers to reach more customers at a lower cost. To bring more books to the developing world through e-readers and e-books, Worldreader.org seeks to support a self-sustaining reading and publishing culture by working with local publishers to digitize books and materials to support local language curricula.
- Portability can increase reading opportunities. Anecdotal reports from classroom teachers in the Ghanaian pilot frequently reference how students would not stop reading, pulling out their e-readers in between lessons, during recess and lunch, and after school with friends, parents and siblings. An International Association for the Evaluation of Educational Achievement study on reading literacy in 32 countries found that the amount of voluntary book reading that students did during out-of-school time was strongly positively related to students' achievement levels.⁷

While the pilot is still in the early stages, the founders of the project are focused on the essential outcomes. Their USAID-funded impact study seeks to find out whether children are reading *more* than they were before the program and whether children read *better* than they were before the program. Measuring program success by understanding the impact on learning outcomes is a critical step for shifting the global education paradigm to one focused on learning.

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⁷ Elley, W.B. (Ed.). (1994). *The IEA Study of Reading Literacy: Achievement and Instruction in Thirty-two School Systems*. Oxford: Pergamon Press.