

# Information and Communication Technologies for Education

## Using technology innovations to support evidence-based programming

Across the globe, it is estimated that 250 million school age children are unable to read, write, or do basic mathematics. World Vision is committed to addressing this critical need through evidence-based literacy programming that engages teachers, caregivers, and communities in the learning process. Technology investments have the ability to support education programming when implemented in a strategic and contextualized manner.

Information and Communication Technologies for Education (ICT4E) innovations alone cannot bring about improved literacy skills, but their use has the potential to help strengthen evidence-based programming already in place by:

- Expanding access and equity to resources and programming
- Motivating engagement in the learning process at the individual, caregiver, teacher, and community levels
- Improving efficiency and quality of data collection for monitoring and evaluation (M&E) activities
- Diversifying teaching techniques for different learning styles and abilities
- Promoting digital literacy that supports learners in acquiring problem solving, critical thinking, and teamwork skills

In many ways technology use in education in developing countries is a 'new frontier,' forcing the international development community to learn and consider new ideas at a rapid rate.

World Vision is exploring ways in which technology innovations can strengthen education programming and contribute to child well-being. To be successful, it is important to consider the types of users and the ways in which technology solutions can best assist these groups in accomplishing their goals.



### Teachers

In education, teachers are the first line of defense to ensure access and quality programming for all. Technology assists teachers in improving the learning environment through tools that allow for real-time assessment of student achievement in order to tailor curriculum accordingly. Tangerine, a M&E platform created by RTI International has incorporated new functionality in Tangerine:Tutor and Tangerine:Class that provides this type of assistance. World Vision hopes to leverage its relationship with RTI to use these solutions in future programming.

## Communities

Technology has the potential to improve a number of M&E processes, including those at the community level. World Vision uses RTI's Tangerine software to conduct baseline and endline data collection for early grade literacy programming. Doing so enables quicker and more accurate data collection, allowing all stakeholders to access needed information in one secure location. Community-based monitoring conducted via World Vision's Citizen Voice and Action model also has the potential to be improved with the infusion of technology. A project in Uganda that incorporated the monitoring of teacher attendance via mobiles saw a 13 per cent decrease in teacher absenteeism as a result of increased connectivity with the Ministry of Education.



## Students

Students benefit from quality technology inclusion when teachers are able to use these solutions to accommodate different learning styles and address the lack of reading materials in the classroom. Programmes like Ghana Reads and iSchool ZEdupads in Zambia provide opportunities for students to gain additional practice for lessons being taught in the classroom, while SIL's new Bloom software will soon allow many National Offices to create local language materials where currently few resources exist.

## Partners

Launched in 2011 by World Vision US and Australia, in partnership with USAID and the Australian Government, All Children Reading: A Grand Challenge for Development is an ongoing series of grant and prize competitions that leverages science and technology to create and apply scalable solutions to improve literacy skills of early grade learners in developing countries.

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