

ICT, Literacy and Teacher Change: The Effectiveness of ICT Options in Kenya

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Abstract

There is a dearth of literature that use research design for causal inference that estimate the effect of information and communications technology (ICT) programs on literacy outcomes in early primary, particularly in Sub-Saharan Africa. There are several programs that have used ICT at a large scale, including Los Angeles, Peru, Nicaragua, Rwanda and an ongoing program in Turkey. Seldom have the studies directly estimated the effect of the ICT program on learning, as the measures used have typically been a middle level of the causal chain (Strigel & Pouezevara, 2012). Mobile phones are increasingly available in the market, and several authors argue that mobile learning is an increasingly ideal way to increase outcomes at scale (UNESCO, 2012; GSMA, 2012; McKinsey & Co., 2012; Vosloo, 2012). There are concerns that using mobiles for learning would differentiate by gender (Murthy, 2011). Fewer studies have estimated the impact of e-readers on learning, though some recent studies in Kenya and Ghana are promising (Worldreader, 2012). Analyses of the impact of large scale tablet and laptop initiatives is somewhat discouraging. The World Bank blog of ICT Specialist Michael Trucano recently presented an analysis of several countries programs, including the USA, Uruguay, Thailand, Peru, Kenya, Rwanda, Turkey, India, Argentina and Portugal (Trucano, 2013). Few of these studies consider cost when estimating impact, and the impacts identified remain small or not yet determined. In all of the studies researched, in fact, there was no attempt to compare the cost and effectiveness of different ICT interventions within one study. The Kenya Primary Math and Reading Initiative (PRIMR) aims to improve literacy learning by aligning learning materials and teacher practices with current research, providing ongoing instructional support and observation, and supplying instructional materials and English and Kiswahili books for students. PRIMR is a partnership between USAID/Kenya and the Ministry of Education, with implementation by RTI International. Embedded in PRIMR is a study of the effectiveness and cost-effectiveness of ICT in Kenya, located in Kisumu County. What little evidence exists suggests that ICT programs are not often ineffective. However, in a context where printed material is quite expensive, e-readers may dramatically expand access to print. Similarly, the lack of integration of ICT into the formal system is often decried by the Kenyan Ministry of Education. The ICT program is under careful examination in order to determine the lessons learned for Kenya's own ICT program, with an emphasis on rapidly expanding access to ICT for primary school. Tables and figures are appended.

Full text: <https://files.eric.ed.gov/fulltext/ED562779.pdf>