

### **3ie-IFPRI Joint Seminar: Rekindling Learning? The Impact of eReaders on Cognitive Outcomes in Lagos, Nigeria**

James Habyarimana, associate professor at Georgetown University, presented on the “Impact of eReaders on Cognitive Outcomes in Lagos, Nigeria” on April 10<sup>th</sup> as part of the 3ie-IFPRI joint seminar series. His research evaluates the impact that eReaders have on children’s learning and on standardized tests scores, specifically focusing on verbal, math and non-verbal components. The motivation for this research comes from the need to promote policies that rely on programs that increase learning and not simply school attendance. The use of eReaders, explained Habyarimana, creates an alternative to personal computers since this technology has the same ability to focus on educational tasks without the other non-educational computer applications.

The intervention, part of the Lagos Eko Secondary Education Project, distributed 330 eReaders directly to students graduating from primary to secondary school. It only included students who had taken an assessment test, in order to identify those who have an interest in education. The study had 3 treatment arms: treatment 1 provided students with access to a library on their readers; treatment 2 had access to the library and math, reading and science curriculum content; treatment 3 included both of the former treatments while in addition providing extra current and remedial access for student to practice math and science. The study began in 2010 with the selection of students and collection of baseline data, and finished in April of 2012.

The original design expected to analyze usage information obtained directly from the devices to study how they influence scores. However, the collection of these data proved impossible, forcing the authors to rely on inferior self-reported data to determine the effectiveness of the intervention. The study attempts to measure the marginal effects of each of the treatment components across children who did and did not receive devices. Main results are very limited and show the intervention had no influence on math or reading scores. They provide slight evidence of improvements in non-verbal cognitive skills. The data hint at a correlation between previous level of student achievement and the impact of the eReaders on student test scores.

Julian Cristia, an economist at the Inter-American Development Bank who specializes on the introduction of technology to improve education and health led a follow-up discussion on the presentation. Cristia, currently working on a meta-analysis of research on these topics, suggested that the findings might be limited by the lack of student access to the devices. Limited student access both reduces the sample size and prevents educators from incorporating this technology into their lessons. He also noted that his meta-analysis suggests a more guided use of the eReaders, instead of the less structured approach taken in this intervention, usually generates larger educational benefits for students. Finally, he agreed with the findings from the heterogeneous analysis and suggested this could help with both screening students and targeting those who will benefit most from having access to this technology.