

Affordable Tablets for Turning Overcrowded Classrooms into Collaborative Learning Spaces



Source:

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Education

While IICD continues to use our tried and true ICT4Education interventions, our experience in the field shows us that continuous innovation remains crucial to addressing the needs of the individual communities we work in. In Malawi, where educators struggle with overburdened and under-resourced classrooms, IICD has begun a pilot project for our newest ICT4Education solution: the TeachTab and LearnTab.

While interventions like interactive whiteboards and school management information systems have proven successful time and time again in IICD's projects, there is no 'one size fits all' solution in ICT4Education. For this reason, IICD is always searching for

innovative ways to offer effective and efficient solutions. This month, IICD's *TeachTab* and *LearnTab*, an IICD-developed tablet designed for educational use, was piloted in one primary school and one teacher training college in Malawi. Partnering with Don Bosco Youth Technical College, IICD aims to use these low-cost tablets to address the problems of educational resource shortages and overcrowded classrooms faced by many Malawian schools.

Tablets offer certain advantages that make them very appealing for ICT4Education projects: they are portable, low energy, affordable and offer interactive capabilities. Whereas standardly available tablets come pre-assembled and with a particular set of capabilities and functionalities, IICD is instead taking advantage of the rapidly dropping costs in ICT hardware by ordering the individual components of the tablets and assembling them with basic software that allows the teacher and all the students in the classroom to interact simultaneously. This results in a solution not only much more practical but also much more affordable than installing a traditional computer lab or other ICT solutions.

Using the *TeachTab*, teachers can control the whole classroom and monitor what students are doing with the *LearnTabs*. Teachers can install or block applications remotely and broadcast text, presentations, videos or audio to all devices. The *TeachTab* also allows the teacher to interact with and prompt questions to the whole classroom at once using the interactive whiteboard functionality. Using the *LearnTab*, students can work in small groups, collaboratively post answers to quizzes prompted by the teachers or edit the same document or project together.

Improving teaching practices, learning experiences and group work in overcrowded classrooms

In many Sub Saharan African classrooms, 80 students per teacher is the common reality, and in Malawi these numbers can reach an astounding 120 to 150 or more students in one classroom, leaving one teacher at the front of the room to attempt to deliver and explain a lesson to many different student needs and perspectives. The *TeachTab* and *LearnTab* effectively multiply the number of teachers in the classroom by allowing the teacher to reach more students at once. The *LearnTabs* can be seen as teachers' assistants: if students work in small groups centred around the tablets, the teacher can discuss lessons and problems with them together, avoiding potentially missing students who are stuck in the back of the class or not paying attention.



"In our case at Tsabango 1 we have got large classes which contribute to problems in conducting continuous assessments and teaching itself... The main challenge is lack of teaching resources, as well as an environment not conducive for learners, mostly due to large number of pupils in class."

Teacher at Lilongwe Rural East Zone

"So far 250 applications to enroll in this programme have been submitted. Parents are willing to pay for their children to access this kind of education. For the students with high grades that have not been enrolled by their parents, we will offer about 50 scholarships for standards 6 and 7."

*Maurizio Bricola
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To ensure not only the relevance of educational materials but also local ownership of the project, IICD has partnered with the Malawi Institute of Education (MIE). The educational content on the tablets is based on the digital curriculum as developed by the MIE, and teachers work with the MIE teachers' guide to develop their own lessons based on this curriculum. Through an agreement with the MIE, official textbooks that are part of the national curricula for basic education are provided free of charge.

The first phase of the project has been carried out and teachers are currently being trained on how to use the tablets to design and present content, and students and teachers alike are being trained in the use and maintenance of the devices. With the support the project already has from local

stakeholders like the Malawi Institute of Education and local teacher training and technical colleges, this pilot has great potential for upscaling and sustainability in the longer term. Teachers will begin using the *TeachTabs* and *LearnTabs* in their classrooms this fall, and results on students' academic performance and the sustainability of the tablets will be collected in January 2015.