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# INTEL PARTNERSHIP MEANS LEARNING FOR YOUNG EGYPTIANS



Intel Corporation's Classmate PCs are an affordable, rugged, full-featured netbook designed for interactive, collaborative learning. Intel-powered convertible classmate PCs provide relevant, culturally appropriate teaching and learning solutions. Creative Associates International entered a partnership with Intel and the Egyptian Ministry of Education to bring this exciting, cost-effective education solution to Egyptian classrooms under the U.S. Agency for International Development's Technology for Improved Learning Outcomes (TILO) project. Guided by the latest research, TILO provides intensive training, digital resources, technology and management support to Egyptian schools and idaras. TILO operates in over 400 Egyptian primary and preparatory schools and is in the process of expanding the system with the Ministry of Education. These schools serve as models to replicate the TILO approach. The Intel Classmate PC model will be implemented in 66 of these schools. TILO works closely with the Ministry of Education, conducting constant monitoring and evaluation of the project activities, in order to build their capacity to manage educational reform.

Classmate PCs are designed by Intel and produced and sold by an extensive network of local manufacturers and vendors, supporting sustainability and local economies. One of the Intel Classmate models converts from a clamshell to a touch-optimized tablet mode, giving students new flexibility and micro-mobility inside and outside the classroom. A core component of the Intel® Learning Series, Intel-powered convertible classmate PCs was designed to meet the needs of 21st century teachers and students. They are based on best practices in education and product design—drawn from extensive ethnographic research carried out in classrooms around the world. Intel's global design and engineering teams work in collaboration with local decision makers, end users, and vendors to make sure local values and needs are addressed.

The Classmate PC's software is optimized and relevant for education. Intel supports an extensive network of vendors specializing in complete education solutions, including access, connectivity, hardware, localized content, professional development—and software. This partnership under TILO forms part of Intel's research into best practices for applying technology in real classrooms around the world; how students move around the classroom; the ways they communicate with each other; how they browse the Web, how they learn; how they listen; and what they watch. All of this influences the software that Intel chooses or creates to meet the needs of young learners. Intel-powered convertible classmate PCs are pre-loaded with education-focused software, and run hundreds of mainstream and popular applications. Locally relevant content is provided through Intel's collaboration with local independent software vendors.

## A LOOK INTO THE CLASSROOM

Creative Associates International commissioned an independent review of what was happening in the classroom where the Intel Classmates were being tested. The reviewer concluded that Intel Classmate PC model worked well in primary schools. The assessment also noted that one of TILO's most productive partnerships is with Intel Corporation. The partnership enabled the government of Egypt and each party to get to know the other and to achieve a more focused understanding of school needs and effective reform.

TILO is working with Intel through this partnership to assess the effectiveness of the Intel Classmate learning model in Egyptians schools. Along with the Intel Classmate technology package TILO provides the same intervention it does in other TILO schools: intensive training to teachers and school governance teams and administrative support and digital resources. The trial period of using the Classmate model in four TILO schools in Helwan demonstrated to us that the model can be effectively implemented in schools where the laptops have greatly added value to the overall learning environment. Their introduction has changed attitudes of teachers and students significantly. Both now feel that they are more empowered to do their job well. It was also seen as a tool that could make learning more fun. The increase in motivation and enjoyment was demonstrated through informal but consistent reports of decreased absenteeism.

## OPPORTUNITIES AND CHALLENGES

The TILO team spent approximately eight months troubleshooting, installing and observing the use of the Classmate PC model in TILO primary schools. Some of the advantages of the Classmate model were clear to the TILO team and the Ministry of Education from the beginning. The Intel Classmate PC model provides teachers and students with much more flexibility than a lab model because the small laptops can be used anywhere: in a designated activity room or within the classroom environment. The Classmate model also includes a charging system where the students store the laptops in a charging cart overnight. The TILO team found that the Classmate laptops offered certain advantages to the learning process that many other technology models did not. The laptops' portability to the classroom allowed subject matter teachers to bring tools into their day's lessons in a way that was immediately comfortable. For crowded schools with few extra rooms for labs or few sets of basic materials, this was considered to be an important phenomenon.



Even after Intel Classmates had been functioning in schools for a few months, their impact was evident to teachers and administrators. The digital resources available on the Classmates increased the number of relevant and high quality materials available in schools and introduced new ways for teachers to guide students in learning. This change was observed to help teachers create more active and successful classroom environments. In interviews, teachers and school administrators reported that having the computers as a resource was motivating them to be more creative and sparked a sense of pride in teaching. Mr. Ahmed Hashem, a primary grade 5 math teacher with more than 40 eleven-year-olds in his class, has most recently been using the Classmates to build his student's understanding of coordinate geometry. "Using the Classmates makes teaching easier. Now with the Classmates available for my regular class, I have begun regularly using Geo Gebra, an open source geometry and algebra program." At Emam Mohamed Abdo School in another part of Helwan, Gehan Mahmoud, a grade 4 mathematics teacher, underscored "With the Classmates we are able to create unforgettable learning experiences for these students most of whom don't have access to this kind of technology. You can see how excited they are."

