One Laptop Per Child
in remote Indigenous communities

Gina Milgate describes her visit to a remote Aboriginal community as part of ACER's review of the One Laptop Per Child program.

The Indigenous community of Punmu, situated in the very remote Pilbara Region, is just a dot in the heart of Western Australia's outback. When the weather's right, it's a good eight hour drive along a dirt track in a four-wheel-drive to the closest town, Port Hedland. Punmu is home to around 120 of the Martu people.

I visited Punmu with fellow ACER researcher Dr Michele Lonsdale in November 2009 as part of our review of the One Laptop Per Child Program (OLPC), an international initiative providing laptops to children in developing areas. The program aims 'to create educational opportunities for the world's poorest children by providing each child with a rugged, low-cost, low-power, connected laptop with content and software designed for collaborative, joyful, self-empowered learning.'

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Rawa Community School – an independent Aboriginal school situated within the Punmu community – is one of three remote Indigenous school communities taking part in the evaluation of the "XO" laptops, named because if you turn the logo 90 degrees to the left it looks like a child. The XOs themselves are unique. They are rugged, light-weight, low-power units that can be dropped or thrown across a room with no ill effect. They come with built-in wireless, allowing for internet access, and include educational software that teachers can modify to suit their students' needs. Each unit has a video camera, microphone, word processing software, music and drawing programs and

games and come in a variety of bright colours.

As well as Rawa Community School, Shepherdson College in the East Arnhem region and Newcastle Waters School in the Northern Territory are taking part in the OLPC trial and evaluation. Rawa is an Aboriginal independent community school while both Shepherdson and Newcastle Waters are government schools. Michele and I were compiling an interim report on the early stages of the program after the laptops were delivered to each of the schools in early 2009. OLPC Australia contracted ACER to undertake an evaluation of the program. The main purpose of the evaluation is to measure the impact of the OLPC program on teaching and learning in the three trial schools. Our contact with the schools since the beginning of the program indicates that each school has a different approach to the XO technology and that the nature and extent of laptop use in the classroom also differs across the three schools.

Rawa Community School is not your typical school. There are around 40 students, with another 20 at the Kunawarritji campus on the Canning Stock Route. There is a strong desire in the school community to provide the best educational opportunities possible for its young people. This was one reason the school was so keen to be involved in the OLPC trial and evaluation.

The arrival of the laptops at Rawa in early-2009 was a very special occasion. Each student was presented with a 'special' laptop that was their very own to use, reinforcing the OLPC principle that students take ownership of their laptops and in turn accept the duties and responsibilities that come with accepting a special gift. Six months on from our first visit to the school, our second visit in November 2009 showed that the excitement of the laptops for the students had outlasted the initial novelty period. Sitting among the students, I saw eyes glued to screens, fingers quickly tapping on keyboards, confused expressions on some faces and finally a triumphant, 'I got it! I got it right!' as comprehension dawned on one small boy. He excitedly jumped up and down in his seat as the class clapped his achievement.

Comments from Rawa teachers involved in the OLPC trial indicate that the introduction of the laptops has helped some students to work more independently and has increased their willingness to work harder, while also encouraging students to listen more carefully and improve their behaviour. As one teacher noted: 'A positive is that with these and other school computers, if I lean over to try to demonstrate something, I'm often getting my hands pushed away so that they can do it themselves. This is great from a group of kids who are often afraid to try to do things they're not sure they'll succeed (in doing). I've also seen students helping others, forming small groups and working together, which is great to see.'

The IT teacher at Rawa has developed content for the laptops taken from the students' everyday lives, the environment in which they live, and aspects of Martu culture. The students, whose first language is Manyjiljarra, mostly use the laptops for literacy, but also for English and mathematics classes. Many of the students use the Speak software to type their weekly spelling words into the program so that they can hear the work out loud. Teachers have commented that the laptops have increased students' letter recognition and computer literacy skills.

The XOs have given the Martu children access to the world beyond the red soil and spinifex grasses of the outback, although not without some technical and other difficulties along the way. Despite these difficulties, the staff at Rawa school community have been able to make good use of the laptops in their classes with benefits for both teachers and students.

It is hoped there will be a reduction in some of the technical difficulties that have been raised by teachers when a newer version of the laptop with better functionality, the XO1.5, will soon be available to the trial schools. A second phase of the OLPC evaluation will measure the impact of the new laptops.

For now, some short-term gains are apparent. Sitting in the classroom in Punmu and seeing for myself the enjoyment the students get when using their laptops, it's obvious the wonderful sense of pride and self-worth they experience when successfully completing an activity, not to mention the acknowledgement from their friends and teacher. It's also obvious that a lot of thinking and hard work has gone into getting the most from these machines in the interests of improving student learning.

Perhaps the impact of the OLPC program to date is best summed up by one of the teachers in this way: 'The community is proud of the students' efforts and most of the elders are now aware of the new tool that is being given to the children for their personal use and to share with family.'

Further information about the One Laptop Per Child project is available from <www.olpc.org.au>