Trip Report

November & December 2010

Details of what was, or was not, accomplished on our trip to Lesotho:

1. SUPPLIES - Task completed successfully except delivery of scanner.

We delivered to Nohana Primary School 48 XO laptops, cords and adapters, spare computer parts, external hard drive, wireless access points, USB hub, USB flash drives, network software, tools, generator, fuel container, fuel, spare generator parts and supplies, two deep-cycle batteries, electrical wiring and supplies, and adapters.

One item we planned to deliver, but did not, was a scanner. The cost of scanners in Maseru was much higher than we'd expected. We discovered that the existing school printer can serve as a scanner but is not functional because of a faulty power cord and adapter. The part has been ordered and will be delivered by mail.

2. SECURITY - Task complete.

There is a large, wooden cabinet with an inset combination lock in the office for storing the laptops. The school will soon be replacing that with a metal one. There are burglar bars on the windows and doors of one classroom designated as the computer room. When we left, the school was within hours of finishing installation of burglar bars on the generator room and on the office where the network server is and where the laptops will be charged and stored.

3. EDUCATIONAL & HIV/AIDS MATERIALS - Task partially completed, ongoing.

We uploaded additional XO activities onto all the XO laptops. An HIV/AIDS brochure for children, prepared by UCE, was loaded onto the network server.

Because of the scanner malfunction, a series of HIV/AIDS materials for children was not uploaded onto the school network. However, a local Peace Corps Volunteer will be scanning and uploading those for us in the near future.

MindSet is providing digital educational materials and software designed by and for southern Africans. We are awaiting delivery.

Microsoft School Technology Information Centre did not deliver on promised Microsoft and open-source materials. We will continue to pursue that.

Toward the end of our stay, SchoolNet offered to partner with us on educational materials, but as of now, no details have been worked out between us.

4. POWER SYSTEM - Task mostly completed, system is functional.

A small basement room at the school was converted to the generator and power system facility. We set up the generator, grounded it, and connected the wiring to the adjacent school office. We also provided fuel to power the generator.

In the office, we installed outlets and built shelves with multiple adaptor plugs where the laptops can be charged. There is currently power from the generator to run the network server/desktop computer and to charge the XO laptops.

The school did landscaping to improve drainage around the generator room so it does not get wet from ground water seepage. The school will complete this by laying cement around the building's foundation.

We did not get an exhaust pipe attached to the generator to vent fumes out of the generator room. Until this is completed, the generator can be moved outside to run. It is inconvenient but functional. The school will have a welder come install the exhaust pipe.

We are negotiating details with an electrical systems specialist who has agreed to move the existing solar panel and batteries from its current location and connect it with the new generator system. We are also making arrangements with him to expand the solar power capacity.

5. NETWORK SERVER & INTERNET - Task not completed; however ...

The network server hardware was set up and attached to the power infrastructure. The system currently consists of a desktop computer, a second hard drive, wireless access points, a USB hub, and external speakers. The printer/copier/scanner/fax will be connected once a replacement adapter cord is received.

We had problems downloading the network server operating system. What we got was corrupted and could not be installed. A replacement copy will be sent to the school by mail.

Acquiring internet access proved to be a major problem. Help offered by several different experts wasn't delivered. There were a number of misunderstandings in communications between Vodacom (the internet service provider), myself, and the school, resulting in a great deal of time lost travelling back and forth to Maseru to acquire documentation.

When we left, the Vodacom application for service had been completed and all but two documents submitted. Those will be presented to Vodacom shortly by the school principal. Funding to cover all hardware, installation fees, and one year of internet service has been deposited in a bank account in Lesotho, and arrangements have been made with the bank and Vodacom to have the money debited from that account as needed.

We expect the network server and internet access to be functional by next month.

6. TEACHER TRAINING - Task completed very successfully

Training for six of our team members began at the Kliptown Youth Project near Soweto, one of the locations where the One Laptop Per Child organization deployed XO laptops in the past. This was also the first chance most of us had to actually meet each other in person.

The Kliptown training was an eye-opening experience. Our hosts and trainers were very gracious. We learned about the laptops themselves at Kliptown, but at a nearby school we learned a lot about how not to teach with them. One of the many problems we observed was that only one teacher in the entire school used the laptops. Afterwards, we had long discussions about what we had seen and how we could use that knowledge to avoid similar mistakes.

When we arrived at Nohana Primary School, all eight teachers and two headmasters were extremely enthusiastic, dedicated, and eager to learn the laptops. They attended daily lessons, took copious notes, got lots of hands on practice, and took the laptops home for extra practice. Several visited us after hours for individual lessons and to ask additional questions. Their personal experience taking the laptops home convinced them of the importance of allowing the students to do the same.

Most of the teachers are now at the point where they can explore and learn new programs on their own. Except for one teacher, they have all gained sufficient skills to teach the XOs to their students. They have also learned to work together and help each other with the computers.

School was closed the last week we were there, but students and teachers came in for additional training anyway. On the last few days of our stay, each teacher created their own lesson plan, without any help from us, and taught a class using the computers. One of the most exciting aspects was that a number of them taught lessons that used the computer to enhance lesson content, not just to teach computer skills.

Before the generator was set up, charging the laptops for so many lessons each day became an issue, and each laptop had to be shared by up to four students. Fortunately, that actually turned out to be a good thing. There was a lot of chatter and interchange between the students during the

classes. I could see the learning, and the enthusiasm for learning, happening right before my eyes. Still, we'd ultimately like to have more laptops available so there are only one to two students per laptop. For some lessons, sharing is good, but for others, it is best for students to have their own laptop.

After the classes each day, we did reviews of the teachers' performances, letting the teachers critique each other. Invariably, the next day, they incorporated the suggestions from the previous day into their lesson. They quickly picked up two teaching skills I expected would be hard for them to master. The first was not to always lecture or try to keep control over the classroom. The second was not to step in to do things for the children when they don't catch on right away. Instead, they learned to step back, observe, and allow the students the opportunity to make mistakes and learn for themselves. If they did step in, they learned to allow the student to actually do the task with the teacher just guiding the student's hands on the keyboard and touchpad.

Without exception, the teachers said they were nervous at first, but once they got going, they really enjoyed it. 'Fun' was a word that cropped up a lot! Their enthusiasm was palpable.

Repairs -- Despite their inherent sturdiness, we did have several XOs I bought that came with damaged keyboards or touchpads. I taught the teachers how to replace those. Then, on their own initiative when I wasn't around, they worked together and fixed all the ones that needed repairs. What a great team!

Generator -- We also taught about half the teachers to operate and maintain the generator. A bit timid at first, they all got so they enjoyed pulling the starter cord and hearing the engine roar to life. A crowd of adults and children stood close by just to watch the generator run each time we charged the laptops.

7. CONTRACTS, RULES & REGULATIONS - Task completed successfully.

One thing that ate up a lot of time was developing contracts for all parties involved. This, however, was not a waste of time. We spent a number of days discussing every eventuality we could think of and how to deal with each one. At first, it was like pulling teeth to get the teachers to come up with solutions, but they finally learned that we weren't going to tell them what to do, and they came up with their own set of rules and regulations for the project. We turned those into a series of separate contracts for students, parents, teachers, the school and Laptops to Lesotho. The rules and regulations and all the contracts will be translated into Sesotho before being presented for parents and students to sign.

The contract work was excruciating, and everyone dreaded those sessions. But they all attended

them, and throughout the process they agreed that it was necessary and important work. I think the process was as important as the result, and I think this is what will hold the project together in the long run. Everybody knows what is expected of them, what they are responsible for, what the benefits are, and what the consequences will be when anything goes wrong.

The rules and contracts give a lot of insight into our project. These will be posted here soon. I highly recommend that you read them.

8. COMMUNITY & REGIONAL SUPPORT - Task accomplished successfully, efforts ongoing.

Nohana Primary School:
The School has pledged to raise over $100 each year to pay for some project costs. They paid for all security measures, some travel expenses, and transport costs. Teachers who traveled to Kliptown for training paid some of their own travel expenses.

Parental Support:
The parents are very enthusiastic and involved. We had several meetings with them with good turnout. There was a lot of discussion at the meetings. Their primary concern was that if we let the children take the laptops home, the laptops would be damaged. I was able to reassure them on that point (... having personally dropped several XO laptops onto the concrete floor, accidentally, of course. The XOs I dropped not only remained intact but continued to work like a charm.)

Another common concern of the parents was why we weren't supplying the laptops to the high school. We discussed the advantages of introducing the laptops early in a child's education and also the reality of lack of funding to do everything we would like.

We had several parents from surrounding communities who spoke with us in passing who either asked if we could supply computers to the school in their community or said they wanted to enroll their child at Nohana Primary because of the computers.

Community Support:
We met the minor chief in Mafikeng several times and got his support. We tried to meet with the primary chief in Ketane, but she wasn't available, though we did meet and talk with her staff. Matlabe spoke with her at another time about the project, and she gave her support to the project.

The community wanted to present us with thank-you presents for our help, but we told them about the "Pass It Forward" philosophy and asked them to help the school instead of giving us gifts. They thought that was a great idea. Still wanting to do something for us in lieu of gifts, they held a community celebration day for us with singing, traditional dances, and a community

meal.

Religious Community Support:
We met with the priest at the Nohana Mission and got his full support. He provided some local transport for us and for the generator and fuel, among other things. He also pledged assistance with grant-writing and fundraising.

We met with the Deputy Secretary of the Catholic School Secretariat in Maseru, who pledged his support. The Secretary was scheduled to visit the school last week, after we left, to see the project.

Police Support:
We met with two police representatives in Ketane. They were very excited about the project and pledged their assistance with any security issues or problems we might have.

Health Workers Support:
We met with a top official from the clinic in Ketane. He was the only person who was not keen about working with us, a big disappointment.

The local traditional healer was involved in the celebrations for the project, but we didn't actually meet with her officially, something in hindsight we probably should have done.

Government Support:
I didn't get a chance to meet with the ministry representative for the Ketane area; however, Matlabe has met with him about the project, and he expressed his support. I did speak on the phone with another ministry official in Maseru who was also very enthusiastic about the project.

I spoke a number of times with First Secretary of the Lesotho Embassy. She was very engaged and supportive and arranged for waiving customs fees for our laptops and project supplies.

Business Community Support:
Four of us gave a presentation at a Maseru Rotary Club which was received very well. Just before we left Lesotho, we got a commitment from the Maseru Rotary to contribute $1500 and some logistical support to our project.

Foundation Support:
We met Cecily Salmon of Solon Foundation in South Africa at the Kliptown training and had very productive talks with her. The Foundation has pledged to donate $7500 to our project to expand the solar power capacity and acquire more XO laptops.

Other Observations and Thoughts about Lesotho Education

One thing Craig and I noticed repeatedly was how most Basotho have a very hard time "thinking outside the box." In a variety of circumstances, we observed that they do very well when a task only requires straight-line thinking and adherence to a clearly defined set of rules or instructions. But, any time they were presented with a situation that they hadn't faced before or didn't fit neatly into their instructions, they dithered, stalled, balked, refused to continue, or looked for someone else to handle the situation.

They had serious problems if we asked them to consider an alternative, though valid, solution. They could not think on their own or work through the possibilities logically. This was true in our encounters with everyone from street vendors, service sector staff, customs officials, teachers, bank staff, managers, and government officials. There were exceptions, of course, but they were unfortunately rare.

It is this type of thinking which hinders progress in Lesotho and is what we hope to address with our project. We expect the use of laptops in the primary school to eventually produce students who can think logically and abstractly, can conceptualize complex designs, can collaborate on tasks, and can identify and solve problems all on their own.

A Lesotho Embassy official in Washington DC immediately saw the value of this approach, and said, "You will be training the future leaders of Lesotho."

No matter where the children from Nohana Primary School end up as adults, in whatever jobs they do, we expect that they will be able to contribute to the improvement of life for their families, their communities, and their country. This is the dream that guides us in our work.