Clarity project to meet low-tech challenges

Aksum University

Overview: This paper discusses Clarity's project at Aksum University in northern Ethiopia. The objective was to integrate five interactive learning resources into the English undergraduate course. The project was developed in conjunction with Voluntary Service Overseas (VSO) which funds an English coordinator at the university, and was spearheaded by Aksum University itself. The main challenge was to install, implement and maintain the ICT materials on an infrastructure that was extremely basic. This is the focus of this paper.

Structure of the project

Phase 1: Understanding the challenge

Aksum is a new university with a single computer room: 20 recycled computers, with no local area network, no Internet connection and a persistent virus problem. The Clarity technical team in Hong Kong needed to ensure that the programs were reliably installed and running smoothly in time for the visit of the Clarity trainers. The training visit was scheduled for mid-October, so a deadline for installation of the learning resources was set at the end of August, allowing plenty of time for delays.

Phase 2: Setting up communication

Although a simple installation of Clarity programs onto standalone computers is very straightforward, it was felt that with the limited time available for training in October, nothing could be left to chance. As stated, there was no Internet connection at the university, so Clarity support staff communicated with the local technician via an Internet café in Aksum town.

Phase 3: Editing and compiling

Viruses were regularly introduced from students' USB sticks. It was established that it was not practical to change student behaviour in this regard. The problem was therefore solved by installing a system restore and recovery program called Deep Freeze on each of the computers. This works by restoring the desired configuration every 24 hours. The down side is that student activity is lost on a daily basis, but this is better than the alternative where viruses stop the programs from running altogether.

Phase 4: Installation

With the virus problem eliminated, installation of the programs went smoothly. Clarity also designed a "portal screen" in English so that students could see graphics for each program displayed prominently, rather than as tiny icons on the Desktop. The whole process was completed in time for the training visit, and the Clarity programs have continued to run smoothly since then.

Lessons learned

1. By addressing problems in a methodical way, it is possible to have ICT resources running smoothly and effectively even in the most challenging environment.

2. Publishers and other ICT providers need to live in the real world, not the world as they would have it. There is a strong tendency to look to the next technical innovation – tablets, iPhones, the cloud and so on. Educational institutions, however, tend to run with older technology, so it is as important to look backwards as it is to look forwards – probably more so. This is why Clarity continues to publish for standalone computers and networks as well as for online environments (including SCORM), iPads and Android tablets, and phones.