

Uganda School Visit M&E Report 2009

Schools visited: 48 (target= 50)

Introduction

Overall the M&E function of the Ugandan Hub has been positive for 2009. A large proportion (78%) of the computers received in the last eighteen months has been delivered to schools. They have all been very meticulously tracked by Afritrack number, manufacturer's serial number, make, model, colour, and monitor serial number. The first 34 schools were visited by Byz, who was hired and trained as the M&E Officer in March. The reports are in broken English, but very detailed and comprehensive. Unfortunately, management discovered that Byz was charging schools to change their operating systems and he was dismissed. There was naturally some concern about the accuracy of his reports, so as well as hiring new M&E Officers to visit the remaining schools, the CEO sent them to cross-check nine schools Byz had visited without giving them the existing reports. A cause for concern was that in one school Byz had failed to properly clarify that the computers were still in storage five months after receipt. From an M&E perspective this is certainly significant. Other than that, the reports correlated very closely and thus the information collected can be accepted as accurate.

1. Student Interviews

The most notable aspect of the student interviews is the number of no responses. A sizeable number of students were either on holidays or doing exams at the time of the visits, and there is an evident need to better anticipate when students will be free for interviews. Another issue was that it took the M&E Officer several visits to get accustomed to documenting the reports properly, highlighting the need for long-term M&E Officers. The major cause for concern, however, is the number of schools where students have been denied any access to the computers whatsoever. While this was reported in seven of the 48 schools, the high number of no responses suggests that in reality this figure is likely to be higher again. The recurring theme is that schools just leave computers in the store upon receipt, despite having a fully functioning laboratory. In part this could be addressed through additional training, but it also highlights the

importance of explaining and enforcing the school contract. In one case the lab was fully functional, but the teachers were using the computers and the students denied access completely.

For the most part the reports were very quite positive. Most students respond well to Linux, even those who articulated the need for additional training in it. The main benefits cited were that the computers work faster, and that the games and educational material were useful. Students in seven schools specifically reported liking it as an operating system, with only one school reporting negatively. There were several requests for additional software, notably music and video programmes. Perhaps less easy to accommodate were a small number of requests for sound, FrontPage and the internet. One group of students expressed enthusiasm at receiving the best possible training at the cheapest available cost. Another group stressed that what they were learning was incompatible with what they had learnt previously with computers. This can more than likely be attributed to the prevalence of Windows as an operating system. On a very positive note, only one group of students reported that they were given too few computers.

2. Teacher Interviews.

The teachers' responses were quite different to those from the students. Again they were largely positive, though as could be expected there was more focus on maintenance and costs of ownership. Five schools expressly asked for more maintenance support, with two requesting on-site visits every two months. Two also expressed concern at the costs of bringing computers long distances to the Hubs for repair. The answer, as teachers see it, is regular visits from Camara maintenance technicians. While this may be part of the solution, the level of support requested is cost-prohibitive from the Hub's perspective. This highlights the importance of training at least one teacher in every school the basics of computer maintenance as a pre-requisite to receiving computers. Teachers in two schools expressly asked for teaching materials, such as teachers' manuals.

For the most part teachers in Uganda are very positive towards Linux, and seven requested more training in it. The general rule seems to be that teachers who are trained in Linux

become receptive to it, whereas those who are not will always resist it. Two teachers changed all of their computers to Windows and one requested that Camara change the operating system on one so he could compare them. This suggests a critical openness which should be welcomed. One teacher described Linux as being very fast and reliable, though another articulated problems saving material. One interesting side-effect of using Linux is that it is harder to find repair services locally.

One school also asked for typing tutorial software, and surprisingly accounting software. This is suggestive of the fact that schools are using at least some of the computers for administration. Six schools specifically reported this, and several reported using the computers to produce exams. This strongly correlates with the online feedback, which suggests that the practice is quite widespread. Considering Camara's vision to strengthen the education system in Africa, this should be welcomed and in fact systematically supported with training.

One teacher described the computers as good quality and cheap to buy. Another reported increased enrolment directly resulting from having a functional computer lab. One of the major misconceptions is that Windows is required to play music and video, which is a big priority for both teachers and students. While Camara has a strictly educational focus, perhaps the answer is to install some educational open-source videos¹, as well the mainstreaming material currently under development.

¹ The videos on <http://www.ted.com/> would be particularly useful.

3. Beneficiary Profile

All computers were received between June 2008 and July 2009. There is a slight anomaly in terms of the computer tallies but it is very minor (2.5%).

Total Number of computers received	1,967
Number of computers received in the period	889 ²
Computers accounted for	693 (78% of those sent from January 2008)
Mean lab size	14.4 computers
Median lab size	12 computers
Computers broken	45 (6.4%)
Computers missing	12 (1.7%)
Computers functioning in the labs	654 (94.4%)
Approximate total number of students	21,700
Mean number of students per school	452
Median number of students per school	350
Median number of students per computer	29
Mixed schools	43 (91%) ³
Boys' schools	3 (6%)
Girls Schools	1 (2%)

The geographical spread of the beneficiary schools is quite wide, ranging from Fort Portal to the Congolese border. While the vast majority of the schools are near main roads, this is probably to be expected. Mapping the schools later in the year will give a better insight into the geographical coverage. Ethnically the mix is very good, and none of the schools immediately appear to exclude minorities (though in all likelihood this is probably inevitable). The mix includes Batooro, Bamba, Baganda, Bakonjo, Banyoro, Whites and Indians. Only one of the schools discriminates on the basis of religion (Catholic), and there are large numbers of

² All subsequent figures are derived from this number.

³ Of 47 schools. In one case the gender mix was not specified

Catholics, Protestants, Muslims, and Presbyterians. One school has Seventh-Day Adventists, and another two have Bisaka students.⁴

In terms of gender Camara's schools are surprisingly balanced. Of 48 schools all but four are mixed gender. Three are exclusively male and one is exclusively female. One school is not reported on. Within those mixed schools where the gender balance is given girls actually constitute a considerable majority. This is probably somewhat misrepresentative, and will be evaluated more rigorously in 2010. However, even approaching this level of gender balance is remarkably rare in development interventions and represents a significant achievement.

Perhaps the most interesting statistic is the median number of computers per school. The typical Camara school in Uganda has only 12 computers, less than half of the target. This level of coverage is actually quite reasonable, given that the median school size is 350 students. This means that each student should receive an hour using the computers within a thirty-hour week. The difficulty however, is in terms of splitting classes. While we do not have data on the typical class-size in Uganda, it is certainly over 25. The common practice seems to be putting three to four students at each computer, which is clearly undesirable. The ideal solution would be to train teachers in computer laboratory management. For example, within an afternoon the class could be divided into groups, alternating between general study, computer theory, and computer practice.

⁴ Small religion founded in Uganda in the 1980s with approximately 10,000 adherents.

4. The Labs

Schools that charge students to use computers	13 (30.2%) ⁵
Schools that do not charge students to use computers	30 (69.7%)
Schools with computers in good condition	39 (81%)
Schools with computers in fair condition	3 (7%)
Schools with computers in poor condition	6 (12%)
Labs in good condition	37 (79%) ⁶
Labs in fair condition	4 (8.5%)
Labs in poor condition	6 (12.8%)
Schools suitable to receive more computers	36 (75%)
Schools not suitable to receive more computers	12 (25%)

Camara's Ugandan schools are reasonably good in terms of not charging students for using the computers. None of the M&E Officers actually noted how much was charged in those cases where schools are imposing a fee. It is certainly an issue that needs additional monitoring, to ensure that equal access is maintained. During a visit by the Principal Development Officer in March one principal reported that they only let children use the computers if their parents pay, which is obviously damaging. There is certainly a strong argument for including universal student access as a prerequisite in the school contracts. By and large the computers are reported to be in good condition. Those computers that are broken generally have broken hard drives or faulty RAM. In several cases schools have changed the operating system of some or all of the computers to Windows. However, in the case of most schools this is not specified so it is difficult to gauge the numbers involved.

The condition of the Labs seems good, though it is difficult to gauge how rigorous the M&E Officers were in evaluating them. For next year there will be a list of criteria against which schools are matched. The issues that are stressed in the poor labs are over-congestion and not having enough tables. Patently the fact that six of the computer labs had no computers in

⁵ Of 43 schools (for five schools it was not specified whether they were charged)

⁶ Of 47 schools (for one school the lab condition was not specified)

them is a major cause for concern and needs to be addressed. In terms of safety none of the labs were found to be dangerous, though again the M&E Officers were unqualified to make a proper assessment. Unfortunately the student proficiency in the majority of schools was rated as quite poor, which is indicative of the quality of teaching provided. Without a certified standard against which to quantitatively measure students it is difficult to make an objective assessment. Camara's decision to systematically focus on training teachers to a high level seems crucial in this respect.

In terms of the M&E Officers' own comments there are recurring themes that emerge. Many of the schools are using the full suite of Linux-based computers in an organised lab. Lack of space within the laboratories in some schools is a definite issue, as is the condition in which some of the labs are kept. The condition of the labs and the quality of ICT education delivered to students is often the responsibility of one teacher. This makes the schools vulnerable when that teacher changes post. Without proper scrutiny and management teachers can perform poorly and neglect their responsibilities regarding the maintenance of labs and teaching students. Perhaps it is worth considering meeting with the Board of Management in a school prior to delivering computers, and enforcing a more robust school contract.

The M&E Officers seem to have been quite productive in a maintenance capacity. They fixed computers in eighteen schools, some of which were a considerable distance from the Hub. In terms of maintaining the labs, this dual role is imperative. It also ensures that the M&E Officers employed are technologically adept, and in a position to properly assess condition of the computers and labs. Recycling is a definite problem, and many schools reported their intention to give ultimately give the computers to teachers. Another common response is that schools have not considered how they will dispose of the computers when they reach end-of-life. Only two schools of the forty-eight specifically articulated their intention to return the computers to Camara for recycling.

The M&E Officers reported that 36 of the schools were suitably placed to receive more computers in the future, and that 12 were not. A number of schools are currently developing new laboratories, and there seems ample potential to develop long-term relationships with schools. This is a highly-desirable outcome because it enhances the sustainability of the overall project in Uganda, and allows Camara to build upon existing teacher expertise. For the most part the schools were described as being run by hard-working managers and well organised.

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