#

# Hands on computer classes for 1,800 Ghana children

**The project**

Information and communication technology (ICT) is a compulsory subject for Junior High School students (ages 11-16) in Ghana. However, many schools do not have computers, internet connections or electricity, and so the students are unable to practise using technology. As a result, they fail their ICT examinations.

The cost of failure for children of poor families is high. Their parents take them out of school, and so they cannot progress to further education. Without skills, they are unable to compete in the job-market, and face an uncertain future.

Working with a library, [EIFL (Electronic Information for Libraries)](http://www.eifl.net) has successfully tested a solution: mobile libraries equipped with solar power that take fully charged laptop and tablet computers to schools.

**Hands on computer classes for 1,800 Ghana children** will provide 1,800 children who attend schools located in poor and rural areas with the opportunity to develop vital technology skills, and increase their potential to pass the Basic Education Certificate Examination, the crucial exam that enables them to progress to secondary school.

**Background**

**Hands on computer classes for 1,800 Ghana children** scales up [a successful ICT in education pilot project implemented by Volta Regional Library with support from EIFL](http://www.eifl.net/eifl-in-action/hands-computer-classes-struggling-students) in Ghana’s Volta Region from 2012 – 2014. This project, also posted to GlobalGiving, was titled **Hands on computer classes for 450 Ghana children.**

Volta Regional Library travelled to poor and rural schools in and around Ho, administrative capital of Volta Region, bringing laptop computers and modem internet. Working with teachers, librarians offered practical ICT classes.

After just two years, the children’s school test and exam results improved.

# The Hands on computer classes for 1,800 Ghana children expands the project to three more regions: Ashanti, Western and Upper East. I

# Through the support of GlobalGiving, including a grant received from the technology company, Nokia, through GlobalGiving-UK, EIFL was able to equip library vans with laptop computers and modem internet, projectors, screens and solar panels to charge the equipment. The equipment is being used in practical computer classes and for study in other subjects, like English and mathematics.

# n each region, the regional library’s mobile library van has been equipped with solar-powered, wi-fi internet, and laptop and tablet computers pre-loaded with educational materials related to school subjects. Working with the education board, the regional libraries selected 25 schools, and launched a programme of mobile ICT classes.

**Project results 2015 - 2017**

The expanded project (in Ashanti, Western, Upper East and Volga regions) has been extremely successful.

* In less than a year (2015/16) the project taught 3,800 children in grades 1, 2 and 3 at the 25 schools to use computers and the internet. This is more than double the number of children the libraries originally planned to reach.
* The hands-on classes increased the 2016 ICT exam pass rate to 65% - that is 20% more than in 2015.
* The hands-on classes helped over 700 children in Grade 3 to pass ICT in the Basic Education Certificate Exam - the exam that determines progress to secondary school.
* Children, their parents, teachers and headmasters were overjoyed with the exam results achieved with the help of the Hands-on Computer Classes project.

Esther, who dreams of being a television news presenter when she leaves school, and her friend Herbert, who wants to be a doctor, are two of the lucky children who passed the ICT exam. “The computers and internet helped me pass the ICT exam, and other subjects,” said Esther. “The computers are going to help me do research on diseases and how to solve them,” said Herbert. Esther and Herbert are now proud secondary school students - and one step closer to achieving their dreams.

To watch EIFL’s video about the project, click here: http://bit.ly/2m7gMQC

**Budget: 2015 - 2018**

Please see the detailed budget, below.

**Project summary:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **What?** | **Where?** | **What’s the real human need?** | **What’s the technology?** | **What’s the human possibility?** | **What is gunding required for?** | **What’s the specific impact or outcome of spending the money?** |
| Solar-powered mobile library computer classes for 1,800 children in rural schools in three new regions of Ghana  | Ghana | The need is for children to complete their education and to progress in life.In Ghana, most rural schools do not have electricity, computers or the internet. ICT – based on computers - is an examinable school subject. To progress to secondary school children must pass the Basic Certificate of Education Examination (BECE), which includes an ICT exam. But they are failing because they do not have access to computers or the internet. The cost of failure for children of poor families is high – their parents take them out of school. The project will target 1,800 Junior High School students in three regions of Ghana where schools do not have electricity or computers.  | Solar power, wi-fi internet and computers (laptops for ICT classes and tablets) pre-loaded with educational material related to school subjects.  | Training children computer and internet skills, needed to pass Basic Education Certificate Examinations, opens them opportunities for secondary education. Without education and skills, they are unable to compete in the job-market, and face an uncertain future.  | Laptop computers and some tablets, solar panels, wi-fi internet and training so that three regional libraries can travel to rural schools, reaching 1,800 children and teach them ICT understanding and skills essential to passing their exams. Understanding and skills essential to passing their exams.  | Improved potential of 1,800 children to pass the exams that enable them to progress to secondary school. |

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| --- | --- | --- | --- | --- |
| **BUDGET: HANDS ON COMPUTER CLASSES FOR 1,800 GHANA CHILDREN** |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **GlobalGiving budget 2015 - 2018** |  |  |  |  |  |  |
| Includes costs to be covered 2015 - 2017, reaching 1,800 Ghana children |  |  |
| **GlobalGiving budget 2013 - 2016** |  |  |  |  |  |
| Includes costs to be covered for Volta Regional Library, reaching 450 Ghana children |  |  |
|  |  |  |  |  |  |  |  |  |
| As noted in the project description, above, the 2015 - 2017 project, Hands on computer classes for 1,800 Ghana children  |
| expands and extends the Volta Regional Library project to three more regions. It includes some additional costs  |  |
| for the Volta Regional Library project, which is continuing. |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **Summary:** |   |   |  |  |  |  |  |  |
| Total budget 2015 - 2018 | 137,211 |  |  |  |  |  |  |
| Budget 2013 - 2016 | 33,000 |  |  |  |  |  |  |
| **Overall total** |  | **170,211** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **We are seeking to raise US$153,792 through the current GlobalGiving campaign.**  |  |  |

**Detailed budget:**

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| --- | --- | --- | --- | --- | --- |
| **GlobalGiving Budget 2015 - 2017** |  |  |  |  |  |
| **Hands on computer classes for 1,800 Ghana children** |  |  |  |  |  |
|  | Unit cost | Units  | #regions | Total USD |  |
| **Equipment** |  |  |  |  |   |
| Low voltage laptop computers for ICT classes (1) | 795 | 15 | 3 | 35,775 |  Type: 11-12" inch screen; up to 6 work hours battery, incl. MS Office; mouse & soft sleeve type case |
| Tablets for digital educational content (eLimu) (1) | 350 | 5 | 4 | 7,000 |  Type: 7''-10" inch screen, Android powered; one quad core processor and 8 GB internal memory, and soft sleeve type case  |
| Outdoor Wireless Network Node & Accessories | 270 | 1 | 3 | 810 |  |
| Solar power panel unit for charging computers and powering wireless network | 7000 | 1 | 3 | 21,000 |  |
| Black & white A4 multifunction laser printer (2) | 655 | 1 | 3 | 1,965 |  |
| Portable HD mini projector (3) | 350 | 1 | 4 | 1,400 | Including Volta region |
| Portable screen for projector  | 80 | 1 | 4 | 320 | Including Volta region |
| Public address system for large outdoor classes | 200 | 1 | 3 | 600 |  |
| Digital educational software, based on school curriculum (eLimu) | 25 | 5 | 4 | 500 | Including Volta region |
| Collapsible chairs (per tablet user) | 30 | 20 | 3 | 1,800 |  |
| **TOTAL EQUIPMENT** |  |  |  | **71,170** |  |
| **Contracted technical services** |  |  |  |  |   |
| Configuration of laptops software imaging & installation  | 50 | 15 | 3 | 2,250 |  |
| Configuration of tablets, software imaging & installation  | 50 | 5 | 4 | 1,000 | Including Volta region |
| Technician transport costs and trip related costs: Accra - Region - Accra | 400 | 1 | 3 | 1,200 |  |
| One-year technical support / region | 475 | 1 | 4 | 1,900 |  |
| **TOTAL CONTRACTED TECHNICAL SERVICES** |  |  |  | **5,350** |  |
| **Operational costs** |   |   |   |   |   |
| Wireless connection: 70 / month / regional library | 70 | 16 | 4 | 4,480 | Including Volta region |
| Administration at local level \* including telephone costs  | 1500 | 1 | 3 | 4,500 |  |
| **TOTAL OPERATIONAL COSTS**  |  |  |  | **8,980** |  |
| **Implementation training & study trips** |   |   |   |   |   |
| Two five-days workshops for 5 teachers per region (1 teacher per school @5 schools) and 2 public librarians |  |  |  |  |  |
| *Planning for roll-out, management, use and maintenance of ICT's; computer literacy skills, use of eLimu digital educational content* |  |  |  |  |  |
| *5 teachers per region (1 teacher per school @ 5 schools) 4 regions, including Volta*  |  |  |  |  |  |
| *2 librarians per public library* |  |  |  |  |  |
| Return travel of trainees to the venue  | 20 | 28 | 2 | 1,120 |  |
| Accommodation @USD 30 x 6 nights x 7 trainees x 4 regions)  | 180 | 28 | 2 | 10,080 |  |
| Meals @USD 25 x 5 days x 7 trainees x 4 regions  | 125 | 28 | 2 | 7,000 |  |
| Training materials, notes & pens  | 8 | 28 | 2 | 448 |  |
| Trainers' fees / Technical trainer (2 trainers x 5 days) | 200 | 5 | 2 | 2,000 |  |
| Trainers' traveling, accommodation and travel related expenses  | 1500 | 2 | 1 | 3,000 |  |
| Workshop venue | 150 | 5 | 2 | 1,500 |  |
| 2 days study trip to Volta region (estimated costs USD105 for 2 days x 7 persons x 3 new regions)  | 105 | 7 | 3 | 2,205 |  |
| **TOTAL TRAINING & STUDY TRIPS** |  |  |  | **27,353** |  |
| **Other costs**  |   |   |   |   |   |
| Fees for education experts to identify digital content relevant to Ghana curriculum & prepare recommendations (2 experts x 100 USD per day x 15 workdays)  | 1500 | 2 | 1 | 3,000 |  |
| Allowance to Global Giving visit project (including flights)  | 2000 | 1 | 1 | 2,000 |  |
| Marketing & awareness raising  | 1442 | 1 | 3 | 4,326 |  |
| Stationery (paper, printer toner cartriges, etc.)  | 550 | 1 | 3 | 1,650 |  |
| **TOTAL CONSULTANCY** |  |  |  | **10,976** |  |
| **SUBTOTAL** |  |  |  | **123,829** |  |
| Project Management & Evaluation @ 10% |  | 1 | 1 | 12,382 |  |
| **OVERALL TOTAL** |  |  |  | **137,211** |  |

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| --- | --- | --- | --- | --- |
| **GlobalGiving budget 2013 - 2016** |  |  |  |  |
|  |  |  |  |  |
| **Computer classes for 450 children at 5 poor schools for 3 years (enough to complete Junior High School)** |  |  |
|  |  |  |  |  |
|  | **Unit** | **No** | **Unit cost** | **Total** |
| **Costs to be covered through GlobalGiving campaign:** |  |  |  |  |
| **Equipment** |  | **US$** | **US$** | **US$** |
| 40 low power netbook computers  | laptops | 40 | 650 | 26000 |
| Solar panel units and accessories |   | 1 | 7000 | 7000 |
| **Subtotal / Global Giving Project Budget** |  |  |  | **33000** |
| **Costs to covered by Ghana Library Authority / Volta Regional Library** |  |  |  |
| **Staff and administration** |  |  |  |  |
| Staff costs | 2 librarians one driver @ 36 months |  |  | **22383** |
| Maintenance of equipment | Cost/month | 36 | 30 | 1080 |
| Stationery | Est cost/year | 3 | 300 | 900 |
| **Subtotal** |  |  |  | **24363** |
| **Transport costs** |  |  |  |   |
| Fuel for library van - 36 months/20 gallons/month @ US$5 / gallon | Diesel / month | 36 | 100 | 3600 |
| Maintenance of library van est. $50/month | Costs | 36 | 50 | 1800 |
| **Subtotal** |  |  |  | **5400** |
| **Total** |  |  |  | **85,146** |