E-LEARNING SYSTEM (ELS)

Quality education in low-resource settings

TRAINING

REMOTE

OPEN-SOURCE

LOW CARBON FOOTPRINT

HPIICT

Health Partners
INTERNATIONAL
A DAI Global Health company

CHALLENGES THAT PREVENT ACCESSIBLE LEARNING

Quality, affordable and up-to-date education remains a luxury for many people in low-income countries. Lectures or training sessions often take place in person. This means either the trainer or student has to travel to several different locations. The quality of training is inconsistent and content is often outdated.

Electricity shortages and poor internet connectivity hinder the effective use of information and communication technologies (ICT). Reliable electricity supply and internet connectivity are expensive and difficult to maintain.

OUR SOLUTION AT A GLANCE

Health Partners International (HPI) offers a low-cost E-Learning System (ELS) that gives trainers and students access to quality, affordable and up-to-date training using the power of technology.
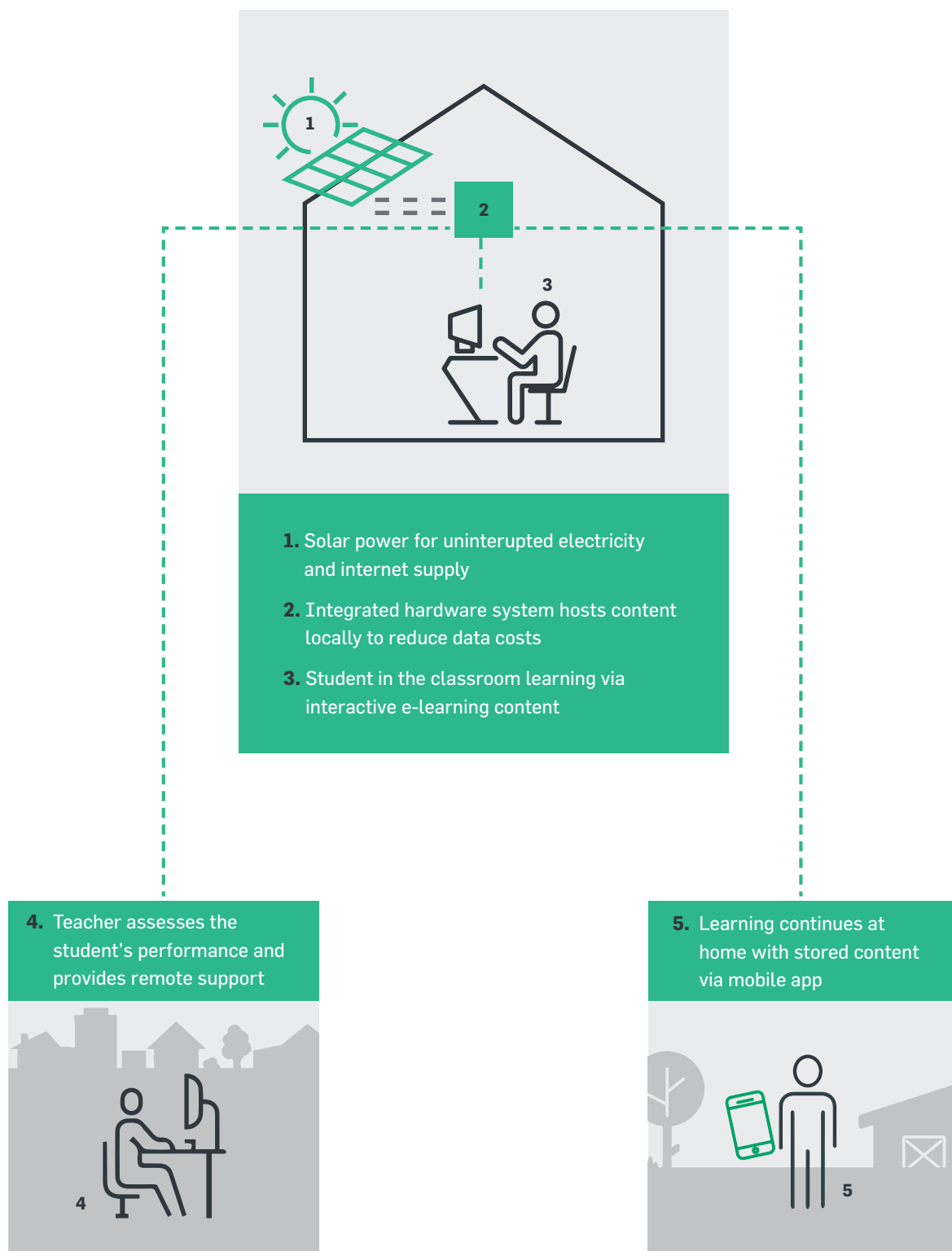
BENEFITS

- Delivers customised, interactive, high quality online courses not limited by slow internet speeds.
- Allow students/trainees access to the system either in a classroom or via their mobile phones.
- Supports trainers/teachers to deliver content and assess progress remotely via online assessments.
- Unaffected by electricity shortages as solar-powered computer units provide up to 12 hours of uninterrupted usage.
- Reduces internet download costs by having offline functionality and storing all data locally.
- Supports all functions of training, including discussion groups, monitoring and student assessments.
- No annual licensing fees required.

DESIGN FEATURES

- ELS uses open source Moodle software that is easy to customise according to training needs.
- ELS uses affordable, off-the-shelf hardware that enables a functional ICT infrastructure, in the presence of contextual challenges.

SAVE ON DATA AND POWER

1 E-learning content is **only downloaded once** and then accessible continuously. Conventional systems require students to download content every time they want to access it.

2 **Data-associated costs are reduced threefold for each student**, compared to conventional systems. With each additional student, data costs are reduced even further.

3 **Power consumption is reduced elevenfold,** compared to conventional systems.

1. Solar power for uninterupted electricity and internet supply

2. Integrated hardware system hosts content locally to reduce data costs

3. Student in the classroom learning via interactive e-learning content

4. Teacher assesses the student's performance and provides remote support

5. Learning continues at home with stored content via mobile app

WHAT DOES ELS DELIVER?

I. AFFORDABLE AND ENVIRONMENTALLY-FRIENDLY COMPUTER HARDWARE

ELS supports the creation of a fully functional solar-powered learning classroom. Three key elements achieve this:

1. Solar panels supply your chosen room with enough energy for 12 hours of uninterrupted computer and internet usage.
2. The classroom is equipped with the latest affordable energy-efficient computer units.
3. A solar-powered mini-server gives students access to learning materials, articles and e-books at all times. There is no need for multiple internet downloads. This dramatically reduces internet-associated download costs. The server is set to download materials during off-peak times when data costs are reduced.

II. ACCESSIBLE AND FLEXIBLE LEARNING PLATFORM

ELS uses Moodle, an open-source software platform that can be customised to provide a comprehensive learning infrastructure. Students can access the Moodle platform via desktop or mobile phone. This ensures learning can happen in all locations. It holds several benefits for students and teachers.

Benefits for students:
- They learn in an interactive and self-directed way.
- Content is always accessible – within the classroom, from the workplace or from home via the Moodle mobile application.
- Content can include documents, images, videos and audio.
- They can engage in discussion groups with peers and tutors.
- They can self-assess and track progress towards achieving learning goals.
- They can give direct feedback on course content.

Benefits for teachers:
- Access-restricted portal for teachers.
- They can upload new course content as it becomes available.
- They can send messages to students about course updates and timetable changes.
- They can track student outcomes via customised course assessments online.

III. INTERACTIVE AND QUALITY ONLINE COURSES

Online learning offers world-class accredited content that is interactive, engaging and encourages independent learning.

Our team creates online courses together with leading technical experts, based on local curriculum content. This content is then adapted according to e-learning pedagogy and translated into online course materials. We add images, video and audio to give students a unique learning experience.

All courses are protected under the Creative Commons License and available globally. We offer support to gain relevant country accreditation for our online courses.

Although the development of online course materials requires an initial investment, the returns increase every time a new student enrols. Online learning offers value for money and increases the knowledge and skills of students across low-income countries. Once developed, national scale is possible and feasible.

IV. COUNTRY CAPACITY AND ONGOING SUPPORT

Country-ownership and sustainability of ELS is important to us. Where required, our team supports the strengthening of national ICT capacity. We identify and equip a national ICT advisor to provide daily support to the organisations using ELS. A local or regional ICT representative is also identified. These representatives undergo a train-the-trainer course to provide training and support to other trainers, managers and students.

The web-based Moodle platform enables remote login access, so the ICT advisor can provide support and assist with trouble shooting. Dedicated How-To manuals are included and a 'Frequently Asked Questions' section provides answers to common problems.

Where local maintenance is not a feasible solution, HPI offers service-level maintenance agreements of different time-spans.

ELS IN ACTION

WOMEN FOR HEALTH (W4H)

Country: Nigeria

Scope: Five states in northern Nigeria,

                    19 Health Training Insititutions

Timeline: 2011 - 2017

Partners: Health Partners International (Lead),

                    GRID Consulting Ltd, Save the Children

Funder: UKaid (£26.8 million)

THE PROJECT

Women for Health (W4H) is a multi-year programme that aims to address supply and demand challenges causing the critical shortage of female health workers in five states in northern Nigeria. The programme empowers women to become nurses and midwives who serve their local communities. W4H achieves this through strong community engagement and mobilisation, strengthening health training institutions to improve quality of education and creating a gender-friendly learning environment.

ELS IN W4H

HPI first developed ELS as part of the W4H programme activities to improve the quality of education and training nursing and midwifery students received. Electricity shortages and expensive internet costs were overcome by the installation of solar-powered classrooms in Health Training Institutes. Usage increased from 2 to 12 hours per day and internet-associated costs per user reduced to £4 per year. Tutors are now trained to develop their own e-learning courses and local ICT capacity has been built to support the maintenance of the system.

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GET IN TOUCH

If you would like to learn more about our e-learning system or have a discussion about how we could assist you, please contact Pieter de Ruijter, Technical Lead – Healthcare Technology and ICT.

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