



Student Enterprise and Innovation Africa(SEI Africa)

Keywords Education

School in a Box (SIAB)

In Partnership with the Centre for Entrepreneurship, Innovation & Information Technology Africa– Masaka- Uganda (CEIITA)

An innovative collaborative project to deliver science training and entrepreneurship using solar-powered iPads to schools in Uganda

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Introduction

CEDF/Student Enterprise and Innovation (SEI Africa), Keywords Education, along with School in a Box (SIAB), is a unique collaboration to bring the latest in science literacy, entrepreneurship and mobile education to rural communities in Uganda. This collaboration offers a unique solution to the challenges faced by Ugandans. Firstly, youth unemployment in the country is the highest in Africa. A recent study published by Action Aid, put this figure at 62%, while the African Development Bank estimates it could be as high as 83%. Secondly, with an adult literacy rate of 73% and a 19% difference between male and female literacy rates, literacy levels remain low for children and young people, with the origins of gender demarcation evident in schools. With large class sizes and high levels of teacher absenteeism, creative and innovative solutions are required not only to deliver 21st century skills, but to harness technology to ensure inclusivity.

Student Enterprise & Innovation Africa(SEI Africa)

The Student Enterprise & Innovation Africa programme fosters entrepreneurial and innovation skills in Ugandan students. The core objective is to raise the business awareness and acumen of young people, thus giving them the skills to become entrepreneurs. SEI is committed to ensuring young Ugandans are offered self-employment as a career option. Faced with multifaceted employment challenges, there is a growing need for young entrepreneurs in Uganda along with an innovative and creative employment pool capable of meeting the needs of small, medium and large businesses. There is also a clear sense that such employment opportunities need to emerge from within the local economy to ensure relevance and sustainability.

SEI Africa works to achieve a number of core objectives that include:

- Improving entrepreneurship education between Ireland and Uganda through partnerships.
- Providing meaningful business education for Ugandan students and teachers
- Promoting awareness regarding the importance of innovation and entrepreneurship
- Developing alternative employment routes for young people in Uganda

SEI Africa aims to reach 30 schools in each district with a total of 150,000 students to benefit in the first three years. The objective is to have participating teachers spread the acquired knowledge gained from the programme to other schools, within their district.

[Www.cedf.ie](http://www.cedf.ie)

Keywords Education

The Keywords Education app is a research-based initiative to approach STEM based subjects from a language and literacy perspective. The underpinning methodology is the result of a three-year research study carried out by linguists at Trinity College Dublin, led by Professor David Little. Deploying techniques of corpus linguistics, the team analysed course books across the entire curriculum to identify key items of language young learners need to know for each topic, for each subject. Results from initial tests carried out were very successful and international demand for resources produced by the research team, were downloaded in 110 countries. More information about the original research project can be found at www.elsp.ie.

This research was subsequently adapted for a mobile app and a BETA version for biology was tested effectively with young people in developed countries. The next stage is to investigate how this approach will work in an East African context. With support from the Ugandan Ministry of Education and UNESCO in East Africa, a partnership with SEI and SIAB will provide evidence as to the best way to support biology education in Uganda. This approach will be extended to chemistry, physics and maths, with training on all aspects of science literacy. Training will also consider appropriate strategies for the incorporation of mobile technology into classroom practice. Utilising up-to-date research, and with ongoing practice informed by leading academics in the areas of language, literacy, science and mobile education, Keywords Education offers a unique solution to science literacy and mobile education in Uganda.

School in a Box (SIAB)

School in a Box (SIAB) is an action research based digital engagement project from the Institute of Art Design and Technology (IADT), Dun Laoghaire, working across a number of different levels. Firstly, educational technology is introduced to remote learning environments in the form of iPads connected to a projector and powered by a solar battery and panels. In collaboration with local partners, teachers and facilitators are trained in the use of SIAB technology and methodologies, to find creative solutions to achieve learning outcomes in local contexts. High quality engaging and interactive content, specific to local needs is created in a very short period of time, using simple content creation apps. IADT staff work on the ground with partners to monitor, evaluate and support the sustainability of the project and measure impacts on educational participation and learning outcomes in different environments.

Collaboration

The forthcoming collaboration between SEI Africa, Keywords Education, and SIAB in August 2015, has the potential to offer Uganda teachers and students an opportunity to update their awareness of academic literacy and business skills. For teachers, it will also offer invaluable insight on ways to incorporate mobile education into their own context. This in turn will present a cost effective opportunity to scale this offering in Uganda and throughout East Africa.