

Using Educational Technology to Develop Essential Educational Competencies in Sub-Saharan Africa

Around the globe, there are nearly 800 million men and women who cannot read, write, or count; there are 250 million girls and boys who cannot decipher a single sentence, even though many have spent years in school. In the least developed countries, one quarter of young men aged 15 to 24 and one third of young women of the same age are illiterate. Core competencies such as reading and writing are the essential building blocks for personal achievement and the success of a society.

Centre for the Study of Learning and Performance, Concordia University

Hosted by **Concordia University** and based in Montreal Canada, the mission of the **Centre for the Study of Learning and Performance (CSLP)** is to advance scholarship on teaching and learning processes, and to develop new pedagogical tools based on this new knowledge.

The CSLP team has developed the **Learning ToolKit (LTK+)**, a suite of five bilingual (English and French), evidence-based and evidence-proven tools designed to support the development of literacy (**ABRACADABRA** and **READS**), numeracy (**ELM**), inquiry (**IS-21**) and other competencies within an environment that encourages self-regulated learning and student ownership (**ePEARL**).





Our work was carried out with the aid of grants and support from the following agencies:













Our Work in Kenya

Funded by **Concordia University** and our lead partner, **Aga Khan Academies**, our project began in 2012 with a small pilot study. The initial research focus was on learning about the impact of **ABRACADABRA** on the literacy achievement of boys and girls and on the design of a professional development program to improve the teaching of literacy in Kenyan schools.

With funding from Canada's Social Science and Humanities Research Council (SSHRC), Global Affairs Canada and Aga Khan Foundation Canada, the project grew dramatically. Much of this success was due to the Academies' extensive local network of key stakeholders, their professional development expertise given their ubiquitous outreach activities and their exceptional widespread reputation. Use of the LTK+ expanded to include the use of READS, a digital repository of over 1000 free international stories, and ELM, an early numeracy tool. Additionally, due to the efforts of our local team of LTK+ coordinators and ambassadors, who were instrumental in training and supporting hundreds of teachers and thousands of boys and girls, along with the support of our partners, use of the LTK+ unfolded in such regions as Mombasa, Nairobi, Kwale, Kirindon, Meru and Laikipia.

Over the years, results have consistently shown improvements in student learning, with girls achieving at the same rates as boys. Students across the board not only demonstrated a marked and consistent improvement in literacy and math, but also in science and social studies.

Our partnerships have grown substantially over the years and now include an international collection of scholars (Chinese University of Hong Kong, Shanzu Teachers Training College, Université du Québec à Montréal, University of British Columbia, University of Nairobi, University of Toronto, Wilfrid Laurier University), graduate students, and educational practitioners and policy-makers, the latter including government agencies (Ministry of Education and its agencies, Kenya Institute of Curriculum Development and Centre for Mathematics, Science and Technology Education in Africa), international development agencies (Aga Khan Academies, Aga Khan Foundation Canada, Aga Khan Foundation East Africa, Aga Khan Foundation Mali, World Vision Canada, World Vision Kenya), and others (Camara Education, I Choose Life, SAIDE), with a particular focus on the uses of technology to improve the teaching and learning of essential educational competencies.

Our Vision

With funding from Canada's International Development Research Centre and SSHRC, our current project will improve teaching and learning outcomes through the use educational technology by exploring the scalability and sustainability challenges of using the LTK+ and supporting pedagogy in the developing world contexts of Kenya and elsewhere in sub-Saharan Africa and will contribute to more widely generalizable theory and research about the uses of technology for teaching and learning.





Kenya project

www.concordia.ca/ltk/international

Learning Toolkit

www.concordia.ca/ltk

CSLP

www.concordia.ca/cslp

Aga Khan Academies

www.agakhanacademies.org