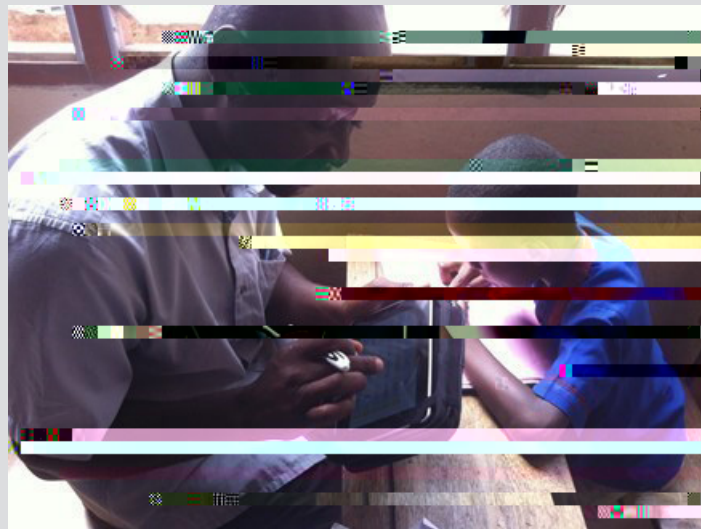


# The global mobile learning story so far

## Using handheld computers

The *Using handheld computers* was a research project to investigate ways ICT could be used to improve access and quality of teacher education in the global south. This study included 12 schools in South Africa and 12 schools in Egypt.

As part of the project, each school was provided with a laptop computer and the project teachers were given a powerful – at the time – pocket PC (206 MHz processor) and digital camera. DEEP professional development activities were loaded onto the pocket PC for the teacher to access. These resources included illustrated e-books, case studies and exemplar lessons.



*Using handheld computers*

Photo credits: Carmen Strigel

Using a handheld computer was a new experience for all the teachers and the respondents to a questionnaire reported that they used the device on a regular basis for use in the classroom and at home. This was confirmed by observations, as the teachers typically used the devices for

- a) lesson preparation including photographs to show the students,
- b) writing and recording appointments
- c) note taking during lessons
- d) making calendars during lessons

project for students in the UK. The *Learning2Go*<sup>5</sup> implementation that began in 2003 moved to the use of mobile Internet enabled smartphones in the Mobile Learning Network (MoLeNET) initiative of 2007. MoLeNET<sup>6</sup>, working in the UK TVET sector, is the largest mobile learning initiative to date. MoLeNET was a three-year project from 2007-2010. Approximately 10 000 learners were involved in the project in 2007-2008 and this number rose to 20 000 in 2008-2009. The findings of this implementation show that using mobile phones for learning facilitated students' retention and lower drop-out rates.

The English as a Second Language (ESL) project<sup>7</sup> in 2010 was implemented at George Brown College Canada. Students practiced language skills outside the classroom walls using mobile devices. Web-based mobile tasks, accessible through student-owned mobiles, were developed. Students used their mobile devices to mediate their communication and access supports for the mobile-assisted language learning activities. The cross-platform mobile learning solution proved to be effective in supporting the development of ESL skills amongst immigrant and foreign students.

Around this same time, two universities in Moscow provided mobile devices to the university students. They gave students Android tablets as they enrolled at the university. These tablets were used to provide access to training materials, tests, and for connecting with peers and staff. This mobile learning initiative has been viewed as a step towards open education in Russia, offering learning opportunities that are flexible to the needs of the learner.

Following the positive results of the earlier *Learning2Go* project, other mobile learning initiatives have

been implemented in South Africa during 2007-2010. Two large projects include the Dr. Math and Nokia MoMaths<sup>8</sup>. Dr. Math is an online math tutoring service. Free live math tutors are available to students via feature phones with GPRS connectivity. The low connectivity costs are attractive to users and this service has been used by 32 000 middle and secondary school students. The Nokia MoMaths group used a proprietary mobile instant messaging service (Mxit) on feature phones to provide access to over 10 000 math exercises. This project began in 2008 with the focus on mathematics students in grade 10. This program was of voluntary use and 3 958 students visited the service with 2 136 active users. The findings show that from the grade 9 baseline, students who regularly used the service scored 7 per cent better on average than peers who did not use the service regularly. The Nokia MoMaths program grew to include in 2011 students in Finland.

A research team in the Ukraine began an initiative in late 2009 to educate students about modern means of communication. A mobile operator worked in collaboration with the Ministries of Education, Finance, and Youth and Sports for this initiative and the lessons have reached over 4 000 students. North America also recognized the need to focus on the effective use of technology. The International Society for Technology in Education (ISTE) developed a set of teacher technology standards (ISTE Standards; formally known as the NETS) to provide a set of standards of good practice<sup>9</sup>. North America has also extended the use of mobile devices in learning with external funding of the Federal Communications Commission *Open Education Resources* <sup>10</sup> programme in 2010. This initiative aims primarily to increase student access to educational content and to



enable communications of teachers and students through the use of online tools for educational access 24 hours a day, seven days a week.

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Since 2011 there has been a rise in mobile learning initiatives initiated by the primary stakeholders such as district leaders and educators. There has been a shift from mobile devices being banned in schools to the same devices being encouraged by many educational leaders. For example, the district leaders at Williamson School district in Tennessee saw the potential for mobile devices in the teaching and learning of their students and started a Bring Your Own Device (BYOD) initiative in 2011. This initiative was district wide by 2012 in grades 3-12 (8-18 years old) involving approximately







<sup>1</sup> Text2teach: [www.text2teach.org.ph/?page\\_id=2](http://www.text2teach.org.ph/?page_id=2)

<sup>2</sup> [www.wageningenur.nl/en/Publication-de](http://www.wageningenur.nl/en/Publication-de)