

# Revolutionising education in SA

BY JON PIENAAR

**A** pioneering project in eight urban schools in the Western Cape aims to bridge the gap between kids from poor schools and their wealthier counterparts. Education standards are low and dropout rates are high in South Africa, resulting in a lack of skilled workers entering the labour market. This will continue to impact negatively on the

economy and stifle entrepreneurship. But the Western Cape has embarked on a pilot project in an attempt to counter this.

Some 11.6m South Africans are unemployed, of which 8.7m are youths aged 15 to 34. Youths make up one-third of the South African population, and they are the group with the highest level of unemployment. For a developing economy, that's bad news: it means that

not enough people are up-skilling at tertiary institutions. It means that those who are meant to be gaining experience in the workplace are not. It also means that businesses are not investing in the future, and one of the main reasons for this is the low literacy and numeracy level in school-leavers.

According to OLICO's Andrew Barrett, businesses are not willing to risk

hiring the wrong people. "One of their biggest challenges must be finding the right people," says Barrett, adding: "We even feel it ourselves in our space when we're looking to hire: it's really hard, it's really tough to find skilled people. Everybody's really risk averse in the current climate, and you don't want to take a risk on an employee because if they don't add properly it could be disastrous." The cost of training someone from such a low base is also a factor.

## A DIRE SITUATION

It is estimated that of the 24 000 government-funded schools in SA, some 20 000 are dysfunctional, with many learners leaving school functionally illiterate and innumerate. The gap in education is directly related to the poverty gap, with learners in wealthy areas performing at par, while those in the poorer areas fall behind virtually from the start.

That's according to Nicholas Spaull and Janeli Kotzé of the department of economics at Stellenbosch University, whose research found that the poor maths foundation learners are getting in the early grades results in a growing gap between the poorest 60% of the learners and the wealthiest 20%, with just 16% of Grade 3 learners performing at the required level.

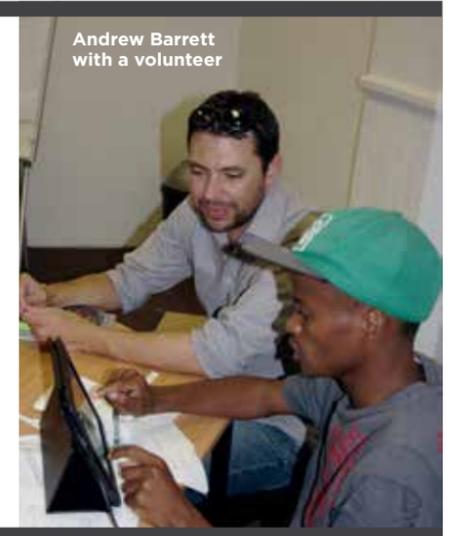
By the time these two groups of learners reach Grade 9, there is a gap of four grade levels between them. Spaull says that after six years of formal full-time schooling, "far too many children in South Africa cannot read, write and compute at even the most basic levels".

In 2014, about one in seven matrics who sat the maths exam passed. There has also been a drop-off in the number of matrics electing to write maths, preferring the easier option of maths literacy.

The picture is made even bleaker when one considers the high dropout rate. Of the 1 261 827 learners who officially started Grade 1 in 2002, only 562 112 wrote matric. Extrapolating this to the matric pass mark, only 14 out of 100 learners who went to school in

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Andrew Barrett with a volunteer

2002 achieved a level of education that would allow them to enter a tertiary institution.

The other 86% have entered the job-market, unqualified for anything but the most menial of jobs. Clearly, it's not just the children who are failing school, it's the schools that are failing the children.

Barrett's experience in Diepsloot seems to confirm Spaull and Kotzé's research. "When we take them in at Grade 7, most of the learners who arrive at our centre are about two to four years behind where they should be," says Barrett. "So what we're trying to do is create a really tailored foundational skills and a step-by-step process for the learners to get through on computers, and then be supported by facilitators." The Diepsloot students were given basic

internet and computer literacy training because many had never been on the net before.

OLICO has developed a Learner Management System that tracks each learner's progress, and makes sure that adequate revision is done at each stage, which allows one person to keep track of many learners.

Barrett explains that the aim is not to replace teachers. "It's a supplement and we're very much trying to find a way to bridge that gap; so it's basically creating a pathway to high school mathematics. So by the time they get to Grade 9 they can write their ANAs [Annual National Assessments], they can do reasonably okay in the ANAs, but more importantly they can enter Grade 10 algebra and be able to really wrestle with it properly," says Barrett.

## USING TECHNOLOGY TO IMPROVE LEARNING

**OLICO IS A** not-for-profit community-based academic support initiative for township school youth. OLICO and another civic endeavour, IkamvaYouth, have joined forces with the Western Cape education department's 'Year Beyond' initiative (YeBo). YeBo is a youth development programme that caters for learners in grades 1 to 4 and 8 to 10, in collaboration with a selection of NGOs (including the Shine Centre and FunDza).

Together, these organisations have embarked on a project that could revolutionise the education system, and improve the lives of many learners. It's an ambitious plan, but it is being adopted with open arms by schools that are desperate to improve their low matric pass rates.

YeBo supplies the workforce, in the form of volunteers – young post-matriculants who are doing a 'gap year' before tertiary education, or who simply want to help the community. IkamvaYouth has a tried and tested system for using these volunteers to assist their younger, less privileged counterparts, in finding problem areas in the syllabus, and guiding them to catch up. And OLICO has developed a web-

based computer system that provides video tuition, exercises and ongoing monitoring of each student's progress.

The YeBo volunteers have undergone intensive training with IkamvaYouth, learning how to mentor learners and also how to use the software provided by OLICO. The web-based system provides a simple, distraction-free interface that guides each learner at their own pace through a process of pre-testing, video learning, post-testing and revision. The maths and literacy syllabus is broken down into modules, and learners have to achieve 80% in a module before they can progress to the next. At the end of each module, a final test includes questions from previous modules, to pick up if something has been forgotten and needs to be reinforced.

Since 2013, OLICO has run a pilot project in Diepsloot north of Johannesburg that used computer-aided learning to assist a small group of learners in the area. Last year, 83% of those who enrolled and completed the six-month course improved their Number Sense Curriculum by an average of 35% and their Foundational Curriculum by 47%. For many, this meant going from a failing grade to a healthy pass mark.

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