

Photo credit: TheWirelessMonkey

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– Ron Beyers,

Director of Technology, St Alban's College  
and Project Manager for the Ulwazi Project

## Africa's first virtual classroom brings education to underprivileged learners

Many disadvantaged communities in Pretoria, South Africa, are plagued by a shortage of qualified teachers and a lack of resources for students. As a result, students spend up to two hours a day commuting by bus to more privileged schools for core classes their own schools can't offer.

Realising the sacrifices these learners make for a basic education, an educator from St Alban's College decided to create a solution. The result was the Ulwazi E-Learning project, believed to be Africa's first virtual classroom.

'Working with Richard Gerber from the Department of Communications, I conceived the idea of employing technology to facilitate a virtual classroom to connect my classroom with Gatang High School in Mamelodi, some 15 km away', says Ron Beyers, Director of Technology at St Alban's College.

With support from suppliers, both schools were equipped with a SMART Board™ interactive whiteboard, a private broadband wireless network from Motorola using the Canopy™ product, a projector, a webcam, speakers and Microsoft® NetMeeting® conferencing software. Using this technology, Beyers and his remote learners can see, hear and interact with each other in a virtual interactive and collaborative classroom.

### Learners now rich in education

Beyers says what's most important about this virtual classroom is that students can do more than simply watch as he teaches – they can actively participate in lessons.

Gatang High School can't afford supplies such as chemicals for science experiments. But now, using a webcam and speakers with the SMART Board interactive whiteboard, students can participate in science classes. From the remote classroom, students watch as colours of chemicals change and listen to the noises chemical reactions create while Beyers conducts experiments.

'Although the visual and audio connections are vital', says Beyers, 'the real value lies in the ability to write on the interactive whiteboards and have the information transmitted virtually instantaneously to the other classroom.'

For instance, using the interactive whiteboard with NetMeeting software, Beyers can begin a drawing and then ask a learner from the virtual class to complete it. Or, he can write a formula and ask a learner to substitute the variables and record the answer on their own interactive whiteboard.

### Challenge

Help students get a basic education without spending up to two hours a day travelling to more privileged schools that have more teachers and supplies.

### SMART Solution

SMART Board interactive whiteboards, a private broadband wireless network and other distance collaboration technology.

### Result

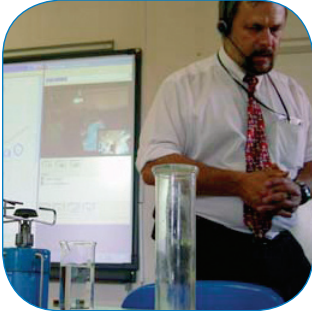
Students receive instruction in core subjects without travelling to another school.

# St Alban's College

Case Study, Pretoria, South Africa

*'The SMART Board interactive whiteboard is literally the interface between the learners and myself.'*

Photo credit: TheWirelessMonkey



Ron Beyers of St Alban's College uses technology to instruct students at an underprivileged high school 15 km away.

Beyers can see everything the learner does on the interactive whiteboard in near real time, and students can see what Beyers is doing.

'The SMART Board interactive whiteboard is literally the interface between the learners and myself', he explains.

## Interactive essentials

Beyers says SMART Board interactive whiteboards provide a level of interactivity between the two classrooms that would not have been possible otherwise.

'The on-site tool that made the most significant contribution to interactivity was certainly the SMART Board interactive whiteboard', says Beyers. 'The fact that the learners were able to interact directly with the educational material on the screen was certainly the focal point, made possible by the broadband of Motorola's Canopy wireless technologies.'

Gatang's students had no inhibitions when it came to using the technology – there was no lack of volunteers to write on the interactive whiteboard during lessons, says Beyers.

'The SMART Board interactive whiteboard became totally transparent to the users as an indispensable tool. Students in the virtual classroom learned to interact with it largely due to its intuitive interface.'

*'The SMART Board interactive whiteboard became totally transparent to the users as an indispensable tool.'*

Seeing the impact the Ulwazi project has had on learners at Gatang High School has made Beyers and his colleagues eager to create more remote classrooms. Through a donation from the Motorola Foundation, the project has expanded to include three other schools, and there are plans to include a further 100 schools in the Tshwane (Pretoria) and Greater Johannesburg areas. The intention is to develop a regional and finally a national grid of learning and innovation, where learners and educators are connected to shared resources and are able to draw on the benefits of communities that are interconnected.

## About SMART

SMART Technologies Inc. is both the industry pioneer and global market leader in easy-to-use interactive whiteboards and group collaboration tools. The award-winning SMART Board interactive whiteboard is the most widely installed product of its kind in the world. It enhances teacher productivity and improves student learning outcomes, and is used in more than 250,000 classrooms spanning more than 75 countries and every Local Authority in the UK. SMART products also include interactive pen displays, interactive digital signage, wireless slates and software. Using SMART products, groups can access and share the information they need to meet, teach, train and present. SMART's education customers include Oxford University (UK), Barnier Public School (Australia), University of Ottawa (Canada), United World College (Singapore), Stephen-Hawking-Schule Neckargemuend (Germany) and Harvard University (U.S.). SMART Technologies Inc. is represented exclusively in the UK by Steljes Ltd. For more information, visit [www.smarttech.com](http://www.smarttech.com).

**SMART**  
Technologies

[www.smartboard.co.uk](http://www.smartboard.co.uk)  
[info@smarttech.com](mailto:info@smarttech.com)

Phone +1.403.245.0333  
Fax +1.403.228.2500