St. Alban's College

Case Study, Pretoria, South Africa

SMART Technologies

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

Photo credit: TheWirelessMonkey

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.

Realizing 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 web cam, 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 web cam and speakers with the SMART Board interactive whiteboard, students can participate in science classes. From the remote classroom, students watch as colors 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 traveling 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 traveling to another school.

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

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

Photo credit: TheWirelessMonkey

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."

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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 is both the industry pioneer and global market leader in easy-to-use interactive whiteboards and other group collaboration tools. SMART products include the family of award-winning SMART Board interactive whiteboards, interactive pen displays, interactive digital signage and software. Using SMART products, groups can access and share the information they need to meet, teach, train and present. SMART customers include NASA, British Telecom, BMW, the Los Angeles Lakers, the U.S. Joint Chiefs of Staff, Disney Imagineering and Harvard University. SMART products are sold through dealers across North America and distributors worldwide.

SMART Technologies

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