



## Technology improves learning outcomes

### Mexico

Interactive whiteboards and innovative new software are transforming Mexican classrooms

With a population of 25.6 million students in primary, secondary and postsecondary schools, educators in Mexico face numerous challenges in their pursuit to provide quality education and support. In this rapidly growing country, the mandatory level of education that students must complete is grade nine; however, only 68 percent of students actually attain this level. Teachers recognize the importance of engaging students in the curriculum but must rely on textbooks and traditional learning methods because only 7.3 percent of the population has access to technology.

In 2003, the Secretariat of Public Education (SEP) and the Latin American Educational Communication Institute (ILCE) acknowledged the positive effect of technology on student motivation and learning outcomes with the launch of the Enciclomedia project. The project is one of the most ambitious technology projects in the world. Its aim is to implement interactive hardware and software into Mexican schools and to create a sustainable workforce in today's globally competitive environment.

The Enciclomedia project combines digitized fifth- and sixth-grade textbook content with videos, maps, music, images and virtual tours. The result is dynamic and engaging software for use in the classroom. The ILCE team, made up of 300 specialists from the fields of education, research, engineering, history and design, intends to transform 200,000 schools into interactive learning environments.

# Case Study

### Challenge

Implement technology on a large scale in schools across Mexico.

### SMART Solution

SMART Board interactive whiteboards and Enciclomedia software.

### Result

The Mexican school system is becoming more technologically advanced, creating a more interactive and engaging learning environment.

"Interactive whiteboards have contributed to giving access to technology for the first time to thousands of Mexican children."

**Flor Hurtado**, link director with the ILCE

Education technology, including interactive whiteboards, is a key component for delivering the content successfully in schools. SMART Technologies Inc. is the largest interactive whiteboard provider to the project, supplying over 51,000 SMART Board™ interactive whiteboards. Presently, almost 142,000 schools are using interactive whiteboards as part of the Enciclomedia project.

“Interactive whiteboards have contributed to giving access to technology for the first time to thousands of Mexican children,” says Flor Hurtado, link director at the ILCE.

The project has helped establish infrastructure to bridge the digital divide, according to Felipe Bracho, the technology education coordinator with the ILCE.

“This is an innovative program that is narrowing technological and social gaps and seeking to avoid digital illiteracy by making technological tools and resources available to children that they could not have access to otherwise,” Bracho commented in a published interview.

An important factor in the success of the project is professional development. To change the classroom dynamic, teachers must move beyond linear and traditional pedagogical practices and learn new methods of instruction that involve the personalization of content and the use of interactive technology. Many teachers considered this project as the perfect opportunity to train in the pedagogical use of new technologies.

“I admit I do not know anything about computing, but after a few training sessions, I came to understand the options offered by the interactive whiteboard,” says Guadalupe Frías Bautista, a fifth-grade teacher from John F. Kennedy elementary school in Mexico City.

Teachers are not the only ones who have experienced the progress interactive whiteboards can facilitate in the classroom. Students enjoy the interactive qualities of this education technology and are more engaged in lessons.

“Now, the interactive whiteboard makes classes more fun, because when I have to write something on the board, I can move it with my fingers and make drawings,” says Daniel Reyes, a sixth grader at John F. Kennedy school.

To gauge the success of the Enciclomedia project, SEP and the ILCE have initiated research to evaluate the effectiveness of technology in the classroom and to study its impact on the teaching and learning process. Fifty-two surveys have been conducted by the institute, and 97 percent of teachers say that their students are more motivated to learn when using interactive whiteboards with Enciclomedia’s software. Eighty percent of the 1,497 students surveyed say that the Enciclomedia content and interactive whiteboards help them understand concepts better.

The use of the interactive whiteboards and the innovative Enciclomedia software is transforming traditional Mexican classrooms into interactive and energetic learning spaces for thousands of children. The integration of technology is helping teachers and students overcome some of the challenges that face Mexican schools. Technology not only benefits students and teachers, but has a far-reaching impact on the country itself. Using interactive whiteboards on a wide scale improves learning outcomes throughout the entire education system, which creates a more competitive workforce.



**Both students and teachers feel the SMART Board interactive whiteboard creates engaging lessons.**

“This is an innovative program that is narrowing technological and social gaps and seeking to avoid digital illiteracy by making technological tools and resources available to children that they could not have access to otherwise.”

**Felipe Bracho, technology education coordinator with the ILCE**

## About SMART

SMART Technologies Inc. is both the industry pioneer and global education market segment leader in easy-to-use interactive whiteboards and other group collaboration tools. The award-winning SMART Board interactive whiteboard is the most widely installed interactive whiteboard in the world. Many school jurisdictions have standardized on the product, which is used to provide interactive learning opportunities and enhance student achievement in more than 330,000 classrooms spanning every U.S. state, every Canadian province, every Local Authority in the UK and in more than 100 countries worldwide. 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 New York City Board of Education (U.S.), Oxford University (UK), Kobe City Board of Education (Japan), Barrier Public School (Australia), University of Ottawa (Canada), United World College (Singapore), Stephen-Hawking-Schule Neckargemuend (Germany), Florida School for the Deaf and the Blind (U.S.) and Harvard University (U.S.).

SMART is a private company founded in 1987. Employing more than 800 people, SMART is headquartered in Calgary, Alberta, Canada, with assembly facilities in Ottawa, and offices in Bonn, Tokyo, China, New York City and Washington DC. SMART has been issued and maintains a broad portfolio of patents with numerous U.S., Canadian and other patents pending. In 1992 SMART formed a strategic alliance with Intel® Corporation that resulted in joint product development and marketing efforts, and Intel’s equity ownership in the company. SMART products are sold through dealers across North America and distributors worldwide. For more information, visit [www.smarttech.com](http://www.smarttech.com).

[www.smarttech.com](http://www.smarttech.com)