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Brazil's Option for Science Education

A new nationwide plan to enfranchise all citizens through education will allow Brazil to reach its full potential

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Less than a quarter of a century after emerging from a military dictatorship, Brazilians have built a stable and vibrant democracy in which more than 80 million voters freely decide the future of their beloved country in each and every election. Lately, by becoming a world leader in food production, spearheading the search for biofuels as a new source of renewable energy and seeking ways to grow its economy while still protecting its unique natural ecosystems, Brazil has started to address a broad range of difficult and unavoidable issues that currently challenge most developing nations worldwide.

Brazil had to work arduously during the past decade to achieve its present economic stability and prosperity. Yet at this crucial juncture of its history, the country faces the daunting task of translating its political and economic stability into social policies and programs that can improve, at long last, the quality of life for millions of Brazilians who, until very recently, would have had no hope of sharing in the country's enormous wealth. But how do you empower millions of citizens, particularly young people, to become true participants in a global society that is continuously changing at a stunning pace as a result of the never-ending incorporation of new knowledge and technologies?

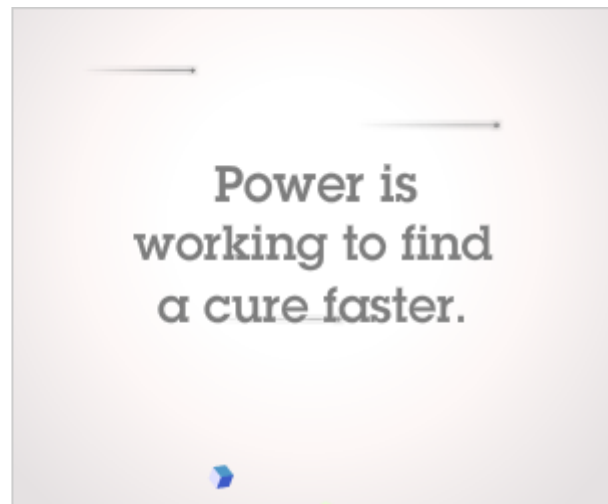
The answer is straightforward: systemic high-quality education, disseminated to reach the entire territory, including the most remote and impoverished communities of this vast country, so that all Brazilians can acquire the means to become creative and critical thinkers, capable of developing their own opinions and becoming true contributors to solve the challenges involved in constructing a fair and democratic society.

Three tenets serve as the main foundations of the Brazilian Plan for the Development of Education (PDE): systemic, territorial and empowering education. Enacted by the current administration, this plan outlines a broad range of executive measures aimed at rescuing the quality, reach and long-term impact of the Brazilian education system.

In addition to promoting actions to improve the basic training of teachers, to establish a national evaluation system, and to define the basis for a close collaboration between the federal government and the states and municipal authorities, the PDE provides, from its fourth year on, an extra 19 billion reais (US\$10,633,535,000) earmarked for education.

The PDE also enacts new directives and guidelines for the creation of the Federal Institutes for Education, Science and Technology (IFET in Portuguese), which will result in the establishment of a network of 354 institutes dedicated to teaching science and technology to high schoolers and training thousands of new teachers in the public education system.

Inspired by the example set by Alberto Santos-Dumont, the great Brazilian inventor and aviator, who in 1901



became the first man to fly a controllable airship powered by an engine, a group of Brazilian scientists decided in 2003 to establish, in the city of Natal, in the northeast of Brazil, a research institute dedicated to using the production of state-of-the-art science as an agent of social and economic transformation for one of the least developed regions of the country [see "Building a Future on Science," by Christine Soares, on page 80]. Among its social initiatives, the Edmond and Lily Safra International Institute of Neuroscience of Natal (ELS-IINN) has established a science education program that today reaches 1,000 children enrolled in one of the poorest performing public education districts in Brazil.

By bringing their vision, efforts and experience together, the Brazilian government, through the Federal University of Rio Grande do Norte, and the ELS-IINN have partnered to establish the Natal Campus of the Brain and to use this multidisciplinary, scientific-social initiative to launch the Alberto Santos-Dumont Science Education Program for Children. The goal of this initiative is to enroll one million children from the public school system nationwide in the most comprehensive science and technology education program in Brazilian history.

By clearly choosing to disseminate high-quality education and science education in particular throughout its entire territory, Brazil is sending a loud message to its citizens and the global community that this giant of the tropics has finally awakened and is now ready to fulfill its potential as a true country of the future.

For Brazilians, a bright future starts now.