Science Education in Brazil: advances and challenges

Tania C. de Araujo-Jorge and Marcus Vinicius Campos Matraca

Lab. of Innovations in Therapies, Education and Bioproducts, Instituto Oswaldo Cruz, Fiocruz-Rio, Brazil. taniaaj@ioc.fiocruz.br

In Brazil the consensus that education is essential for the growth of a development country is insufficient to cover the gap between desires, public policies and results, contrasting with countries like Korea and Japan. The international success of Brazilian experiences in social policies to reduce poverty reflects on a sustainable fall in the Gini index, but the PISA indicators for science education deserves impact measures. Besides, Education in Brazil came up among the priority claims in popular movements that exploded June 2013, leading governments and social actors to try to recover the lost time. In 2014 the Federal Congress should conclude discussions of the 2011-2020 Plan for National Education (PNE) and a National Education Conference is organized for February 2014. Science Education is essential for industry and social innovation and all the players in this scene face challenges, especially scientists. How is it possible to improve science teaching at schools? At different education grades what is the relative role for improvement of science curriculum, science teacher formation, science practices in formal and non-formal education, public communication of science, and learning-cognition-teaching mechanisms/theories? What is the role of artscience fusion in science education culture? What are de priorities for research and test and for implementation at short time? How is it possible to integrate and to articulate efforts of scientists and teachers, and insert science thinking for creativity since the initial basic education, through in middle fundamental education, and attaining biology, physics and chemical teachers in high school and university levels? These are some of the present questions in post-graduate productions and efforts in the CAPES Education Area that I presently do coordinate, and we will discuss them briefly, showing the advances and challenges to foster science education.