

# **NATIONAL REPORT - BRASIL**

## **BRAZILIAN ACADEMY OF SCIENCES**

ABC in Science Education Program

2009-2010 Status Report

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**Background:** The ABC in Science Education Program – Hands On Program aims to improve the teaching of Inquiry Based Science Education (IBSE) in elementary school, especially in the basic cycle (students between 6 and 11 years old), using the approaches proposed originally by the La main à la pâte and Hands on, created respectively in France and the United States, and establishing a link between scientists from the Academy and basic education professionals (teachers, pedagogical coordinators and directors of education). In Brazil, the Program was launched in 2001 through a cooperation agreement signed between the Brazilian Academy of Sciences and the Académie des Sciences of Paris. Currently ten nuclei participate in the program, being these distributed by the states of São Paulo, Rio de Janeiro, Minas Gerais, Santa Catarina, Bahia, Paraíba, and Pernambuco. Typically each nucleus operates at the municipal level, but some, such as São Paulo (SP), Rio de Janeiro (RJ) and Viçosa (MG), include many municipalities.

Between June 2009 and May 2010, with the support of Petrobras, a survey was developed to provide the Academy with a clearer picture of the status of the program in each of the major cities. A few other major activities were also developed, as described on this status report.

Major Activities (do not include activities undertaken by the different nuclei of the Program):

- Taller Latinoamericano sobre Enseñanza de las Ciencias en el Nivel Secundario: Diogenes Campos, acting as coordinator of the ABC in Science Education Program, attended this workshop, which was held in Buenos Aires, Argentina, from September 28-30, 2009. During this workshop, Campos delivered a conference entitled Soils - the living skin of the planet.
- Taller Evaluación, Taller INDAGALA: Danielle Grynszpan, coordinator of the Program in the State of Rio de Janeiro, attended this workshop, held in Bogotá, Colombia, from October 22-24, 2009.
- 5th National Seminar of the ABC in Science Education Program: On October 30-31, 2009, the Brazilian Academy of Sciences organized the 5th National Seminar of the ABC in Science Education Program, which was held in the Planetarium of Rio de Janeiro. Panels on the following themes were held: Science Education in Brazil - Views and Experiences; Concepts and Policies for Science Education; International Experiences in Science Education and the Experience of the ABC in Science Education Program. This meeting brought together more than 150 participants, among which were scientists, science teachers from several Brazilian cities where the program is developed, and officials from the Ministry of Education and of the Secretariat of Education of the State of Rio de Janeiro. The seminar was sponsored by Petrobras and supported by the Oswaldo Cruz Foundation (Fiocruz / RJ), the Planetarium Foundation of Rio de Janeiro, IANAS, FINEP (The Brazilian Innovation

Agency), CNPq (the National Council for Scientific and Technological Development) and the General Consulate of France in Rio de Janeiro. Teachers engaged in the Program in the State of Rio de Janeiro had an active participation, presenting more than 70 posters that were displayed in poster-session during the seminar. These periodical National Seminars have been crucial to stimulate the interchange of experience between the different nuclei of the Program, to provide visibility to the Program, and to promote a continuous dialogue with governmental authorities in the area of education. Further info on the seminar, including the final report, can be found at [http://www.abc.org.br/article.php3?id\\_article=490](http://www.abc.org.br/article.php3?id_article=490) and [http://www.abc.org.br/article.php3?id\\_article=506](http://www.abc.org.br/article.php3?id_article=506).

Diagnostic Survey: During the second semester of 2009, the assessment team responsible for the survey visited the major cities where the Program is implemented. During these visits, besides analyzing the materials used by the Program and observing in locus class activities, the assessment team also held interviews with teachers, students, and parents. Other programs and initiatives in Science Education in the country were also analyzed, in order to provide a more ample analysis where the ABC na Educação Científica could be compared to other national experiences. The survey, which was coordinated by Academician Simon Schwartzman, was developed independently by the Instituto de Estudos do Trabalho e Sociedade, having its conclusions being presented in the report Science Education in Brazil. The conclusions and recommendations presented in the report are currently being appraised by the Academy. The full version of the report can be found at [http://www.iets.org.br/article.php3?id\\_article=1334](http://www.iets.org.br/article.php3?id_article=1334).

- International Symposium on “The Role of Science Academies in Science Education: the Experiences of Brazil and France: On May 5, 2010, as part of the Annual Meeting of the Brazilian Academy of Sciences, an International Symposium was held to examine the experience of the French La Main à la Pâte and the Brazilian ABC na Educação Científica programs. This symposium brought together the coordinators of the Brazilian Program in the different regions of Brazil, which heard and discussed presentations delivered by Diogenes Campos, Ernst Hamburger and Yves Quéré. For further details, please visit [http://www.abc.org.br/article.php3?id\\_article=667](http://www.abc.org.br/article.php3?id_article=667).