

Astrobiology a challenge for the development of science , technology and research in colombia

Jorge Bueno¹, Sandra Garay² and German Sarmiento^{3 1,2,3} Instituto de Astrobiología de Colombia jorge.bueno@astrobiologia.org¹, sandra.garay@astrobiologia.org², german.sarmiento@astrobiologia.org³.

Introduction: The history of education in Colombia is a series of rules on the paper, good intentions just obey the wishes of legislators shift; reform policies and their corresponding counter-annulling, pit, the achievements; vindictory wage protests, impositions; recipes brought by foreign missions, which may well be summarized in several failed attempts, the most, by registering the country into modernity.

The arrival of the new millennium lies in a different world, a world where knowledge occupies a privileged place, which is why our country has embarked on a significant transformation that watches us with first Century The process of transforming education in our country began with the 1991 Constitution and the General Law of Education and becomes a strong government action in 2002 with the name "Educational Revolution" the deepest sense of is it that most Colombians are aware that the output exists and that is through education; This revolution is part of five measures (education durata lifelong education for innovation, competitiveness and peace, strengthening of the educational institution, ongoing modernization of the sector and participatory management) which establish the chart of education in the country.

In these 9 years we have astrobiology as an educational tool that gives students the opportunity to understand, adapt and apply concepts of different sciences around the possibility of existence and development of life beyond Earth. The pedagogical exercise is based on a practical development where the student generates its own questions and through practice responds to them coming to promote a research proposal within the basic level of Astrobiology

In search of answers to the educational paradigms, in action to educate and inspire students in science and technology, and if each activity where the word education is relevant to define each process that human beings develops in interaction with knowledge. Our team implemented a project for development Astrobiology of scientific, technological, social, environmental and academic students from preschool to eleven degrees to allow the environment to be applied in solutions to everyday problems. [1]

In this way the implementation of educational projects that promote research in science, technology, engineering and mathematics (STEM) [1] are not only

innovative defragmentation facing knowledge, but also allows students and teachers to achieve transform the perspective of knowledge that seems fleeting, finding the utility and the projection of their talents in different disciplines that are addressed in school or college.

To carry out each process K12 System implemented and as such its application STEM, as the addresses of NASA Education. The educational project begins with the selection of students by a Rover Mission Explorer in the desert of Tatacoa department of Huila. With a team of experts, teachers, didactic material and technical work and the participation of approximately 150 students, conducted a workshop team competition where awareness and exploration, combined with the construction of knowledge from practice allowed very interesting results in forging the conceptualization of astrobiology and integrally involved areas. Through my-mo group of children developed other extreme as missions in the Sierra Nevada of Cocuy to 5400 meters above sea level, Juaica hill at 3600 meters above sea level, which hit the educational community in country, now we have five groups and about 300 students, and growing in about 500 more applications to participate in this program is the same as our current project focuses on building an educational complex and central investigation to allow interactivity between the professional field and to enrich student coupling inspiration and new generations based on a curriculum focused on astrobiology and supported by an innovative technology platform. [2]

The growth of this science in Colombia has allowed us to consolidate a working group which currently develops the plan to build the first Astrobiology Institute for Latin America and the creation of a school under the vision of K-12 system for 2011 Colombia will pioneer research and education in astrobiology in South America.

References: [1] NPD 1000.0—The NASA Strategic Management and Governance Handbook sets forth principles by which NASA [2] NPR 7120.5C—NASA's Program and Project Management Processes and Requirements. Agency policy governing management of programs and projects.