

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
In Orbit: Postgraduate Space Education (4)

Author: Dr. Aline Veloso
Brazilian Space Agency (AEB), Brazil

Prof. mariana almeida
Federal University of Rio Grande do Norte (UFRN), Brazil

Mr. Gabriel Evangelista
University of Brasilia, Brazil

Mrs. Adriana Elysa Corrêa
Brazilian Space Agency (AEB), Brazil

Mrs. Amanda Oliveira
Federal University of Rio Grande do Norte (UFRN), Brazil

EDUCATION AND SPACE TECHNOLOGY AS TOOLS FOR SOCIAL TRANSFORMATION:
OUTCOMES OF THE PARTNERSHIP BETWEEN UNDP AND THE BRAZILIAN SPACE AGENCY

Abstract

This paper outlines the management and monitoring process of a project spearheaded by the Brazilian Space Agency in collaboration with the United Nations Development Programme (UNDP). The initiative aimed to develop technological educational products to benefit a low-income region in Northeast Brazil. The project team included 12 university professors, 5 postgraduate students, 10 undergraduate students, 18 public school teachers, and 75 elementary and secondary female students from 15 different municipalities, March to December 2023. This elementary and secondary students and teachers were spread the project knowledge in their schools. This project led to the creation of nine technical educational training products and effective project management. The organizational structure was designed to create knowledge multiplication cells. In the initial phase, university professors trained postgraduate and undergraduate students across different courses. This training enabled the students to develop technical training courses, including the creation of a manual and conducting remote classes based on the acquired knowledge. This project design facilitated the provision of nine specialized training courses on space sector themes to the 75 participating students. These 75 students and the 15 teachers developed individual space project in 15 schools, one for each municipal. Moreover, an important aspect of the project's success was the continuous feedback loop established with the Brazilian Space Agency. As the project progressed, the developed technological educational products were periodically reviewed by the agency. This review process was not just evaluative but served as a constructive mechanism to enhance product quality. The space agency provided specific corrections and feedback, promoting a reflective process aimed at the incremental improvement of educational materials. This iterative engagement led to the issuance of technical notes documenting the enhancements made to the products, highlighting the project's commitment to excellence and the fundamental role of reflection in product development. The project recorded a low dropout rate of 5