

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)

Ignition - Primary Space Education (1)

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DEVELOPMENT OF SUSTAINABLE MODEL FOR SPACE EDUCATION AND OUTREACH FOR
AFRICA. THE CASE STUDY OF ASTROZIMBA ACADEMY OF SPACE SCIENCE & TECHNOLOGY

Abstract

Like many other African countries, since the beginning of their space activities Angolan and Zimbabwean Space Programs, disbursed sever resources to support the initiatives locally, and internationally to provide the resources and training guides, as well as teaching timelines, practical exercises and continuous support throughout implementation in the schools of the countries. Recognising that many industries are adapting to the socially-distanced realities of our time, the authors believe e-learning will become the most sustainable knowledge sharing methodology, which again aligns with the desire to maintain sustainability through low-cost events. This is a long-term vision into the strategic implementation of a full space programme for young children (at least 6 years of age). This paper presents a set of contents created and adapted to each one of the SGAC working groups. taking tin consideration the excelent results achievet the the youth around the world. This program is adaptable and can be adjusted to each country reality, incorporating real cases and contents that make the bridge between space and this country realty. The training system allows you to replicate and scale this program anywhere in the world, whether by mere translation or adaptation. The sustainability of the project is also maintained to the extent that the e-resources are recyclable and reusable, with minor adjustments, the videos, software's, simulations and reading materials may all be used in continuity without creating any paper waste. Ultimately the goal is to promote sustainable education according to four pillars: Promoting youth education sustains communities and livelihoods through space; This initiative is inclusive as it targets minority and disadvantaged groups through its cost-effective and decentralised model; The programme incorporates various core subject themes in Space Science Technology including: Astronomy, Physics, Geography, Mathematics, GIS, Navigation. After the analysis of the state of the Art, Surveys and some case studies test with some schools of the 2 countries a 10 Modules Space Education programme was created with satellite mission designs and lectures on space and space-related themes, using interactive methodologies, games, videos, comic books and other learning activities to spark space science and technology curiosity amongst the youth.