

# EARTH SCIENCES AS A TOOL FOR SUSTAINABILITY AND INTERCULTURAL EDUCATION

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Establishing a concrete connection between an intercultural approach and education for sustainable development is an interesting cultural perspective for schools that serves to prepare citizens capable of systemic and flexible thinking, freed from the search for "perfect solutions", rather oriented preferably towards "specific solutions", identified for different contexts and cultures. This connection can result in a feeling of multiple "belonging", overcoming personal isolation and focusing on broader experiences, that will definitely lead students to rethink their behavior and consider deeply on the values supporting it.

## The project

Educational paths shared in 2009 - 2010 with Developing Countries (Brazil, Cape Verde) were based on this perspective.

The activities involved learning communities creating a continuous interplay between students to promote not only education for sustainability but also intercultural education.

The action started from some concepts that characterize Earth Sciences (complexity, interaction, dynamism, fragility, cyclicity) to get to the knowledge of local environment and the problem of water management.

One of the paths involved more than 250 students, belonging to some Italian schools (primary and secondary degree) and one Brazilian school (Salvador de Bahia). These students dedicated their efforts to the theme of "water", recognizing its distribution in the local area, considering it as an agent for shaping landscapes and as a possible source of risk.



A second path involved about 50 students of a Technical Institute and teenagers from a high school of the Republic of Cape Verde (S. Filipe) in a work of perception of the elements characterizing the landscape where they live, followed by a reflection about "water" as a resource to be managed. Starting with a "spontaneous" construction of a "Charter for Water", students compared and updated this Charter working on the Earth Charter, chosen as an international reference document. They completed the action investigating which of the "principles" identified are really provided by local communities and how.

## Methodology

Teachers of different subjects focused young people on:

- field surveys
- selection of sources
- teamwork
- preparation of products to be exchanged in the twinning
- spontaneous observations in progress

They ensure students the opportunity to communicate directly - or through the Web, or through mutual exchange of materials - devoting part of school time to this activity, in order to strengthen the emotional involvement needed to develop curiosity about other cultures.



## Outcomes

The experience produced

- a significant interest in disciplinary issues
- a significant interest in different realities and cultures

The partnership became

- a tool for a transformative reflection of ways of thinking, either with respect to global environmental problems, or their economic and social causes
- a way for comparing habits, cultures, different conditions of daily life, and the basis of a relationship that soon acquired sentimental value
- A way to enhance a real experience of global citizenship

## Evaluation

Teachers created

- a qualitative assessment of change in motivation and awareness in students, checking their dedication during the activities and the care they revealed in the exchange
- a semi-structured test to verify the improvement of cognitive and metacognitive processes shown in the perspective of sustainability and intercultural respect

