

**Conference Strand**  
Sustainability Education

**Title**

*How works Barcelona? An experience of an outsource program carried out by LA VOLA*

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**Abstract**

*How Barcelona works?* is a scholar activity program of the city council of Barcelona (Spain) carried out by LA VOLA that offers visits to environmental management installations and activities at school in order to develop awareness in scholars of improving the environmental status of the city towards sustainability.

The items covered by the program include every environmental issue: water, air, wastes, energy and noise from a sustainable view and several formats, from visits to installations related to environmental management to activities at school conducted by an environmental educator. Every year scholars take part in an environmental award that ends in a party where everyone receives a gadget for their participation.

Last year, the program was improved implementing the strands detected through an evaluating study developed by a sociologist.

**Title of the presentation**

*Scholar activities to achieve a more sustainable Barcelona*

## THE PAPER

### LA VOLA, OUR COMPANY

LA VOLA is an environmental services company with the mission to serve the needs and requirements of our customers in order to reach a society focused on respect for each other and on sustainable use and conservation of the resources of our planet.

The starting point of all our projects is a sustainable point of view, without losing sight of environmental, social and economical interests.

Our company realizes its tasks with a great care and in a professional and innovating way thanks to its multidisciplinary team of over 100 people organized in 3 divisions: a division of consulting a division of communication and the division of education.

LA VOLA is located in Manlleu, Barcelona (Spain) and has over 20 year of experience.

Our clients are other private companies, foundations, public institutions and administrations

### A WORLD OF EDUCATION, OUR DIVISION

The division of environmental education offers a wide range of services that reach over 100.000 people a year:

- **Environmental educational programs.** Visits and educational activities designed to spread knowledge and to build capacities as regard to the environment. Most of the programs are outsources of some local and regional administrations of the Barcelona area that want to invest education for our children, being conscient that is surely the best way to work on improving the environment. For instance:
  - *How works Barcelona?* for the Barcelona City Council on urban environmental management.
  - *Sharing a future* for the Barcelona Metropolitan Area on waste and water management at a regional environmental level.
  - *Let's learn about our parks!* A program to know closer the natural parks of the Barcelona Provincial Council.
- **Environmental education centers.** LA VOLA also runs some environmental education projects, its centers and professional team for some public and private institutions, like the *Water Culture Museum* (Cornellà, Spain), the *Centre for Nature and Sustainable Development of the Pyrenees* (Son, Spain).

## **HOW WORKS BARCELONA? AN EXAMPLE OF AN ENVIRONMENTAL EDUCATION PROGRAM**

The way a big city works resembles very much the one of a living organism. It needs a big amount of different kind of resources to provide its population and economical activities and, after they are consumed, many refuses are produced. How the city uses water, air, energy and materials and how the flows are managed is very unknown for most of the people.

With the aim of showing scholars the environmental management installations, the Barcelona City Council created in 1996 a program of visits called *How works Barcelona?* that is carried out by LA VOLA since the year 1998. The program consists today in a group of environmental education activities at school and visits to all the main environmental related installations that reaches almost 13.000 students a year from 3 to 18 years old, from elementary to high school.

Through the program we pretend

- To divulge environmental management of the city and its installations. The students can understand the environmental management of the city through opening the installations and offering activities to the schools.
- The students can understand the environmental behavior of a big city
- To foster awareness of our contribution to environment as citizens in order to create new patterns of behavior to improve for making progress with the environment.

The project offer to the schools:

- Visits to installations always conducted by an environmental educator
- One-hour activities at the school, directly at their own classroom.
- Every year the scholars take part in an environmental award that ends in a party where everyone receives a gadget for their participation. In the last year's award, the students worked on the sound and the silence in a poetry award where the winners were rewarded with a bicycle as the best example of sustainable vehicle.

### **VISITS AND ACTIVITIES OF THE PROGRAM**

The items covered by the program include every environmental issue which are also the items the city is dealing with: water, air, energy, waste and noise to lean towards a more sustainable city.

**Water.** Very few aspects of such great bearing to a city are so unknown as the sewers and rainwater drainage. In the visit to the sewers, the students wonder what happens to wastewater leaving our homes when disappears down the drain while through a visit to the rainwater retention tank they realize the importance they have for a city like Barcelona, with some very heavy rainfalls typical of the Mediterranean climate, of having these type of installations to prevent floods and pollution of coastal waters.

**Air and energy.** When high schools are working the pollution of the air, they can visit the cabin the City Council is using to control and forecast pollution levels. If the interest of the school is focused on renewable energies, a group of children from high school can visit the

clean energies exhibit in a small cabin where the most common electric gadgets at home are working with clean energies.

**Waste.** Students can learn about the excretory system of the city through visiting the collecting and storing centers of the city, visiting the composting plant where the organic waste collected is converted into soil conditioner and, finally, children between 3 and 8 years old can learn how to sort the refuse into different types when throwing it away through the fairy tale of Reciclet at their classroom.

**Noise.** Noise reduction is one of the main targets for the City Council of Barcelona and one of the best way to reach it is through education. In that sense, students who visit the noise control cabin learn why it is necessary to know the noise distribution, act on the sources and develop preventive measures to reduce noise levels. *How works Barcelona?* also offers a workshop about noise from children from 8 to 11 years old learn how a sonometer works, what is the noise level at different parts of the school and how they can reduce it with very little effort indeed.

**Sustainability.** On sustainability the program offers visits to the exhibition of a Center of the City Council of Resources on Sustainability where students can see practical examples to implement at home for making progress with the environment. Schools can also invite Ciclus to go to their classroom. Ciclus is a character who also explains them practical examples to be more sustainable that can be carried out at school and at their houses easily.

## EVALUATION

Since it began, the program evolves adapting to the last tendencies in environmental education and is aware of the changes occurred in the educational system and so to the perception of teachers and students that take part in it. LA VOLA, after 5 years of carrying out the program and having reached over 50.000 students, wanted to go an step forward promoting an evaluation study published last year. The study was developed by a sociologist last year and the main conclusions to it were:

1. Though it's difficult to distinguish between the influences of the program and related to environment, it reaches its main targets
2. Teachers appreciate the visits and activities as a valuable tool to reinforce their own task.
3. The program rarely extends its influence to other classrooms or to the families of the children
4. Sometimes it stands in contradiction to other inputs of the children, for instance, with the habits at home or what is seen on TV.