



The wow effect

Riccardo Biondi (1), Paola Pagnotta (2), Gabriella Trentini (2), Tiziana Cirotti (2), and Cinzia Parrettini (2)

(1) Wegener Center for Climate and Global Change, University of Graz, Graz, Austria (riccardo@biondiriccardo.it), (2) Scuola Primaria Franco Rasetti, Castiglione del Lago, Italy

Teaching science at elementary school is a hard work for scientists since we usually use to talk to colleagues by using technical and specific words not understandable by general public and school students. Finding plain language for explaining what is the research and for describing scientific topics was the objective of this work.

In collaboration with the school teachers, I organized a series of meetings describing the same subject with different approaches and, at the end of the test-period, we did a survey within the 60 students (10-11 years old) for understanding which was the most attractive approach for them. The survey asked to the students the 3 topics (which could be a sentence, an activity or simply a picture) that they remember at most from all the meetings. Later on we asked why they have chosen those topics.

The common topic was atmospheric and space science and it was approached by using, books, videos, frontal lectures with the support of pictures and other material, and with direct hands-on lab such as 3D puzzles for building a satellite.

Nobody highlights having read a book. The majority of the students (male and female) really appreciated having built their own satellite (wow, I have done it!) and how's the life into the International Space Station (wow, everything flies there and they drink the pee!). Many female students were fascinated by the stars and by the Italian astronaut Samantha Cristoforetti (wow, an Italian woman is there!) while many boys were attracted by the technology evolution (wow, how a mobile phone could be that big?!). Surprisingly 3 students remember a quick (showed for just a few seconds) and blurred picture showing the glory effect by aircraft (wow, a circular rainbow!). The survey shows how the students mostly appreciate the hands-on labs and being active and creative, their attention decreases but it is still active with frontal lectures or videos showing them real examples or something impacting their day-life.