Natural Sciences and Pre-Schoolers: Impact and Future Approaches

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Geosciences are more and more part of the primary school curriculum. However, the subjects of Earth and Astronomy remain very lightly approached. In Portugal, after the mandatory class period from 9 a.m. to 4 p.m., a complementary Experimental Sciences class of 1 or 2 hours per week has been introduced. In the past two years, through a partnership with the Lagos City Hall, the Lagos Ciência Viva Science Centre (CCVL) has been responsible for these classes in 8 primary schools engaging roughly 500 students in STEM activities that aim to support students to better understand and explore general scientific (and geosciences) subjects. But what is the impact of these classes in their knowledge and thinking procedure? What competencies and skills are gained, if any? And what is the background of our students regarding scientific literacy and habits? To answer these questions, we used questionnaires and personal meaning mapping to characterize our primary school population concerning scientific literacy and habits, assess the impact in their knowledge and identify potential caveats in our teaching and evaluation methods.