



Contribution ID: 98

Type: **Poster Presentation**

Experimentation in primary school: Discover and understand or verify what is expected?

Tuesday, 2 October 2018 17:38 (1 minute)

Science education in primary schools in Uruguay is still a pending task. Frequently, only biological science is taught in class and concerning Physics, topics like light and energy are the most commonly studied. Often activities, even in biology, are reduced either to look for information without experimentation, or very guided experimental activities with little space for actual research where results may differ from what expected and new questions might come up. As a result, children have a partial and sometimes wrong concept of science. The idea of science as something distant from reality and ordinary life, holding absolute results and truth, is reinforced.

There is a lot of research in science didactic about the role of the experimentation in order to improve scientific competences in the students.

In this project that is still in process, we analyze the role of experimentation during science class as well as the speech of the teacher in relation to his objectives with the planned didactic sequence. A qualitative methodology was used, through classroom observations and interviews with teachers. We choose a case study to inquire how the experiments are used in a science class and what is the role of experiments proposed by the teacher. To collect the data, recordings of classes was used and in-depth interviews were conducted with the teachers.

We found that in experimentation is used for verify a concept or a theory provided by the teacher or to conduct children to classify objects according their properties and characteristics.

This study let show up: the teacher's conception of science and its teaching, the teacher's ideas about how the children learn and the cognitive processes that in fact are encouraged by the teacher. What we found was a conception of science that still reminds a positivism way. Children are then introduced to a wrong view of science, which probably reinforces dislike and low interest for scientific issues.

Partially supported by: ANII - Fondo sectorial de educación (National agency for innovation and research, Uruguay).

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD, N/A)?

PhD

Primary author: Ms SQUILLA, Silvia (Consejo de Formación en Educación, ANEP, Uruguay)

Co-author: Dr HANNIOTIS, Stelio (Consejo de Formación en Educación, ANEP, Uruguay)

Presenter: Ms SQUILLA, Silvia (Consejo de Formación en Educación, ANEP, Uruguay)

Session Classification: Poster Session

Track Classification: Track B - Physics at Primary and Secondary School Level