

Atelier 2: the integration of children with disabilities in ordinary classes sessions and training teachers

TRAINING TEACHERS FOR TEACHING SCIENCE

Do teachers need special training for teaching science through investigation in classrooms that host children with disabilities?

1. Special training is required that fosters a better understanding of the nature of inquiry in science education
 - a. Special training is required to help teachers identify ways for exciting children's curiosity, experiencing the joy of better understanding the world, realizing observations, working in groups

*This consideration applies to science teaching through investigation in general, not specifically to classes with children with special needs; however, there a special training to teach through investigation to children with special needs might be required

For instance, there are (maybe) special reasons for teaching science to children with disabilities. E.g. teaching science (often) includes group work, and group work is (supposedly) suitable for children with disabilities. Understand if this is the case

2. Special training is required that fosters a better understanding of the nature of science, e.g. the emotional aspects of science, the joy of discovery and reasoning; and dispels the myths; e.g. the myth of the scientific method
3. Special training is required for teachers to gain a better understanding of the specificity of the constraints and potential of children with disabilities. Disabilities is an umbrella term that includes disorders as varied as autism, sensori-motor and cognitive disorders (e.g. effect of cerebral palsy, or else), sensory deficits. It does not help to know that a child has a disability

*The question arises of whether it is desirable to **adapt** science teaching projects to the disabled children that are present in the classroom, and of the very meaning of this adaptation.

In some cases, this is mandatory: e.g. activities about emotions/autistic children; activities that require writing and dyspraxic children; and so on. In these cases special training is required in order to conceive adaptations that are appropriate to the constraints and potential of the child

4. It seems to be a good idea to include the exchange of best practices in the framework of teachers' professional development, and to watch that training sessions are open to teachers with different backgrounds (e.g. presence of teachers who teach special classes for disabled children): teachers experienced in dealing with children with disabilities can then share their knowledge and practices with less experienced teachers.
5. However, the starting point of any science teaching project should be science. Science at school is for all because science is not bound to a number of procedures and of actions, of skills. Science is also the joy of developing the understanding of the natural world, and the challenge of fostering the capacities that are required for this understanding.