On INFN 2010 physics popularization school - Video report

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Abstract

In this short video we report on the four days INFN school “Comunicazione e Divulgazione della Fisica 2010” held in Perugia (Italy) on November 9/12. This meeting was conceived in the frame of a bigger training programme for INFN people interested in the popularization of physics. It was a full immersion school with traditional lectures, laboratories, working group and some sessions called “A tavola con lo scienziato” (i.e. dinners in the course of students could discuss with active scientist expressly invited). In the video are included summaries of the lessons and interviews of the teachers. In particular we paid some special attention on the “A tavola con lo scienziato” event . During the lunches the INFN school students met some teachers and student of the secondary school and ordinary people . This video is not just a chronicle of an event , it collects ideas, experiences and expectations of the people who shared this happening throughout four days. We were particularly interested in the opinions of the students and the teachers interviewed during “A tavola con lo scienziato” event because one of our goals was the understanding of the “learning science problem” directed to decrease the distance gap between science and youth in the era of learning in the wild and citizen-science projects.

The science plays a crucial role in the modern society.
How do people learn science ?
Nature in an editorial, titled “Learning in the wild” told us that much of what people know adout science is learned informally.
The seemingly endless debate about how to improve US science education seems to make the tacit assumption that learning happens only in the classroom. As a result, the arguments tend to focus on issues such as curricula specifying, say, what information pre-college students should be expected to learn at each grade level and, as in US President Barack Obama's recent proposals to reform the No Child Left Behind policy, on the best way to hold schools to rigorous standards of student achievement.
However, researchers who study learning are increasingly questioning this assumption.
Their evidence strongly suggests that most of what the general public knows about science is picked up outside school, through things such as television programmes, websites, magazine articles, visits to zoos and museums and even through hobbies such as gardening and bird watching.
This process of 'informal science education' is patchy, ad hoc and at the mercy of individual whim, all of which makes it much more difficult to measure than formal instruction. But it is also pervasive, cumulative and often much more effective at getting people excited about science and an individual's realization that he or she can work things out unaided promotes a profoundly motivating sense of empowerment.
Nowadays *science popularization* plays a crucial role.
The *science popularization* is an attempt to reduce the distance standing between science specialists and the public.
Science popularization is interpretation of scientific information (science) intended for a general audience, rather than for other experts or students.
The primary objective of the *popularization of science* is to increase public understanding of science.
Since a few years ago, INFN has undertaken a strong program for training its Scientists in Science Outreach and supports many Outreach initiatives.
In 2009 started a four days INFN school “Comunicazione e Divulgazione della Fisica 2009”.
Goal of the Course was to provide participants with tools and insights instrumental to fulfil basic needs of Communication and Outreach about Science in general and Physics in particular.

- 4 days - full immersion
- 20 hours of plenary session lectures:
  Communication Psychology

  Targets of Outreach
  Writing Lab

Communication Protocols
Communication and the WEB2.0

- 4 hours of debate workshops
- 12 hours of hands-on work organized in Working Groups
- 12 hours of “socialising” communication: dining with a scientist

In this school had taken part 40 participants (INFN researchers), 7 coordinators, 20 teachers and 50 guests.
During the lunches the INFN school students met guests for “socialising” communication.
The hands-on work was organized in 7 Working Groups. The school students simulated real events.

Working group 1:
Advertising and publishing products;
Working group 2:
Radio and TV communication;
Working group 3:
Physics on the street;
Working group 4:
Open Lab;
Working group 5, 6, 7:
LHC Physics, neutrins, dark matter.

In 2010 the second edition of school INFN “Comunicazione e Divulgazione della Fisica 2010” was held in Perugia (Italy) on November 9/12.
Aim of the School “Comunicazione e Divulgazione della Fisica” was to provide participants with basic tools and knowledge about verbal and non-verbal communication to be used in Outreach of Science in general and Physics in particular:

- 4 days - full immersion
- 16 hours of plenary session lectures
- Written communication; advertisement communication; non-verbal communication; Physics on the street; Physics outreach in the WEB 2.0 era; Science communication: features and processes; Physics outreach in the schools and learning processes; Physics outreach and adult involvement: goals and results; the Perugia Science Festival; visual Communication: from gestalt to coordinated image design; the role of social media in the daily work of scientists; virtual environments for teaching and outreach.
- 4 hours of debate workshops
- 12 hours of hands-on work organized in Working Groups
- 12 hours of “socialising” communication: dining with a scientist.

In this school had taken part 29 participants (INFN researchers), 4 coordinators, 17 teachers and 40 guests.
During the hands-on work the school students realized a web site for child students.
These schools have been a very good experience for partecipants, for teachers and in particular for guests.
Particularly appreciated is the “dining with a scientists” session, which sees a quite lively participation of students and guests. The next edition will be in Torino in 2012.
Follow this link you can watch video about “Comunicazione e Divulgazione della Fisica 2010”:
http://www.youtube.com/watch?v=TviDcNgLLKg

References

Nature 464 (7 April 2010) Learning in the wild, 813-814