EU-UNAWE – Italy: an European Astronomy project to involve disadvantaged communities in Italy

Alessandra Zanazzi
Lara Albanese
Franco Pacini
INAF – Osservatorio Astrofisico di Arcetri
In Italy there’s a high percentage of foreign students in the classrooms, especially at elementary and middle school level (compulsory education) and they are usually distributed in the poorest suburban areas. Often these children don’t speak good Italian and there are strong integration problems. We think that an educational use of different kinds of languages (i.e. observations inside the Planetarium, as well as puppet theatre, storytelling around a central lamp, creation and projection of images through an overhead projector; hands on activities and laboratories, ...) can address different ways of learning, overcame some of the problems these disadvantaged children face and drive a more effective learning.
One of the EU-UNAWE project main goal is to train a certain number of teachers, that in turn will teach many children in their schools.

We plan to have teachers training sessions, and also direct activities with the teachers AND their students, because we think that is more effective to involve teachers not only in practical and hands on activities, but also in «on the field activities» with the children. In this way they will feel more confident in countinuing the activities indipendently, during the school year and after.
So we judged that the most effective way to have EU-UNAWE teachers training courses in Italy is to go to the schools, many times (at least 3) during a whole school year, meeting the teachers alone and together with their children, involving them in a school year project, a research-action that can evolve and take different directions, depending on the work carried out (autonomously and/or with our help) during many months. If possible we involve parents too.
Generally the work will be divided in 3 steps, with a very inspiring beginning inside the portable planetarium, a place where stories about the stars are told from different points of view, curiosity is ignited and children are invited to ask questions, rise curiosities, invent new stories, let their imagination run, discuss. The work always starts from, and take into account, the children needs and curiosities.
Here we show an extract taken from the video «I cieli del Sud», documenting a long work done from Arcetri Observatory researchers in the Montagnola Gramsci elementary school. Some extracts are re-arranged and shown as activities examples in order to illustrate the 3 steps method we are using for carrying out the EU UNAWE activities; for example here, the video extract features the children enthusiasm and excitation about the first step, the planetarium experience.
Following, we have different activities:

- discussions with teachers and children with the idea of collecting and rediscovering myths and legends about the sky, cosmological stories, etc. that could also be gathered with the help of the families (parents or relatives coming from different areas of the world relate to their children);
- science experiments in the classroom; building simple astronomical objects
- meet the astronomer
An other extract from the same video, as documentation of some hands-on, lab activities that are carried out with the students by the teachers and/or by Arcetri experts.

We would like to point out that this extract, and in fact the whole video, apart from showing the spirit of the activities and the method that we are here describing, gives also great evidence of the children competencies and abilities for making assumptions, elaborate theories, make hypothesis, work out solutions.
The final work could take many forms: a planetarium show, a theatre play, an exhibit, ... we don’t want to put limits to the children (and teachers!) imagination!
Some examples of possible final product are shown here, and (again!) excitement and participation of the children.
We already contacted school in different «dark green» areas in Italy... and also one school in Sicily, which is not so crowded of immigrants. Why did we take the trouble of embarking our 3 planetarium big boxes on a plane to get so far? (except that we want a bigger spread all over the National territory, which is good for the EU UNAWE project of course!)
Because of many reasons:
- we are working with a very enthusiastic school;
- they leave in quite a disadvantaged area too, since they are constantly under the Etna Volcano menace and the area is not particularly rich;
- and because in the «Skies of the world» series, in our work with the children, that involves telling and collecting stories and myths and legends on the sky, the constellations and the cosmologies of the world, it makes sense that we consider Sicily, being it in the so called Magna Grecia, one of the greatest colonies of the Ancient Greeks, cradle of culture (and myths, of course: many of Ulysses’ adventures - just to tell one story – happen here!)
New research, for gathering new myths, legends and stories on the sky, its objects and constellations, cosmologies, etc.

....

Call for collaborations from all over the World!
Please contact us
zanazzi@arcetri.astro.it
albanese@arcetri.astro.it

THANK YOU!