

Subduction indices in Calabro-Sicilian arc : Training for Experimental Skills Testing and collaborative work for students in scientific terminal class in high school.

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In France, at the end of the last year in high school, students of the scientific terminal class have written exams in all subjects they are studying, and in "Life and Earth's Sciences", they also have an Experimental Skills Testing in order to rate them in scientific approach.

This one-hour evaluation is made of four steps:

- During the first evaluation, students have to show that they are able to propose a scientific strategy connected to a scientific problem.
- During the second evaluation, they have to experiment.
- During the third evaluation, they have to introduce their results.
- During the last evaluation, they have to deduce and conclude.

The final testing take place at the end of May, but during all the school year, teachers have to train their students, and it's impossible to make them work on real subjects. Therefore, it's necessary to produce new subjects every year.

Linked to a fall school in Sicily last October, my colleagues and I have decided to create a new Experimental Skills Test to use new examples and illustrate subduction in the Mediterranean Sea with Aeolian Islands. We would like to make our pupils understand what the Aeolian volcanism is due to, by using information, equipment and software, etc. we have in our classrooms in our high school. Since we have found several ways for our students to prove that the Aeolian Islands are linked to a subduction zone, we have decided, following our research, to divide the new experimental skills testing in three different tests, in order to make students train on most of the equipment and then to share their results to produce a collaborative final work.