



Keeping focus on earthquakes at school for seismic risk mitigation of the next generations

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The knowledge of the seismic history of its own territory, the understanding of physical phenomena in response to an earthquake, the changes in the cultural heritage following a strong earthquake, the learning of actions to be taken during and after an earthquake, are piece of information that contribute to keep focus on the seismic hazard and to implement strategies for seismic risk mitigation.

The training of new generations, today more than ever subject to rapid forgetting of past events, becomes therefore a key element to increase the perception that earthquakes happened and can happen at anytime and that mitigation actions are the only means to ensure the safety and to reduce damages and human losses.

Since several years our institute (OGS) is involved in activities to raise awareness of education on earthquake.

We aim to implement education programs with the goal of addressing a critical approach to seismic hazard reduction, differentiating the types of activities according to the age of the students. However, being such kind of activity unfunded, we can act at now only on a very limited number of schools per year.

To be effective, the inclusion of the seismic risk issues in school curricula requires specific time and appropriate approaches when planning activities. For this reason, we involve also the teachers as proponents of activities and we encourage them to keep alive memories and discussion on earthquake in the classes.

During the past years we acted mainly in the schools of the Friuli Venezia Giulia area (NE Italy), that is an earthquake prone area struck in 1976 by a destructive seismic event ($M_s=6.5$). We organized short training courses for teachers, we lectured classes, and we led laboratory activities with students. Indeed, being well known that students enjoy classes more when visual and active learning are joined, we propose a program that is composed by seminars, demonstrations and hands-on activities in the classrooms; for high school students we propose summer stages at the OGS Seismological Department.

Some examples of education activities we performed during the last two years are here presented. Starting with kids at kindergartens, where we propose play and story-telling activities with the final goal to prepare them on what to do in case an earthquake occurs, we show our experience with the primary and intermediate schools where, through hands-on activities, we reproduce and explain the earthquake phenomenon and its effects. Then we illustrate the work of high school students who, under the guidance of an expert seismologist, designed and performed a microzonation study in Gemona del Friuli, a small town that was severely damaged by the 1976 earthquake. Satisfaction questionnaires and feedback by students and teachers help us to assess the effectiveness of our efforts as well as to improve our next actions.