

Sustained impact on student learning: the PRESS40 Project

Carla Barnaba (1), Elisa Contessi (2), and Maria Rosa Girardi (2)

(1) OGS, CRS, Trieste, Italy (cbarnaba@inogs.it), (2) Istituto Statale Istruzione Superiore "Magrini Marchetti", Gemona del Friuli - UD, Italy

Recent seismic hazard perception tests have demonstrated young generations are too often unconscious of past devastating earthquakes, even though they are living in a seismic prone area. To rise seismic awareness and promote the seismic risk mitigation, the celebration of the 40th anniversary of the 1976 Friuli earthquake becomes a good opportunity to refresh the earthquake history in students population. Starting from that, the Istituto Statale di Istruzione Superiore "Magrini Marchetti" (ISIS "Magrini Marchetti") in Gemona del Friuli (NE Italy), with the collaboration of the Istituto Nazionale di Oceanografia e di Geofisica Sperimentale (OGS), has promoted the PRESS40 Project (Prevenzione Sismica nella Scuola a 40 anni dal terremoto del Friuli, that in English sounds like "Seismic Prevention at School 40 years after the Friuli earthquake").

The project has developed in the 2015-2016 school year, involving the senior classes (75 students). One of the most effective way we have found to motivate students is through experimental learning, based on authentic experiences, including students working collaboratively, inviting scientist as guest lecturers into the classroom, encouraging student involvement and attendance at relevant events and ceremonies.

The basic idea of the PRESS40 Project is to involve the students in a geophysical survey to be active part of the seismic mitigation process. The local site response is one aspect of the seismic risk reduction, so that they applied the passive method (ambient noise recordings) to define the site response of significant sites, the school area of their hometown.

The students acquired new data, covering the 23 municipalities from which they come from. These municipalities represent a wide area of the province of Udine (NE Italy) affected by the 1976 Friuli earthquake. At least, 127 measurements of ambient noise have been acquired. Students processed the data and the final interpretation, helped by seismologist, has highlighted that some sites suffer clear stratigraphic amplification, while some others not. These results are the first step for further site investigation for future collaborations between the two institutions.