

ERINAT Project Educazione ai Rischii NATurali (Training on Natural Risks): from informed children to knowledgeable adults

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The ERINat project Educazione ai Rischii NATurali (Training on Natural Risks) offers training on environmental safety within the context of Life Long Learning through a permanent training process aimed at providing the population with a basic education (knowledge, awareness, how to act, self-protection and prevention) on natural risks and at creating a cultural milieu which ensures a turn-over of citizens that choose to take part in the voluntary world.

During academic year 2004/2005 (ERINat 2005) the educational experiment promoted by the Land Protection Sector of La Spezia's Civil Protection Service began, developing the ERINat Project with the Regional Education Office for Liguria Office V - Territorial Sector of La Spezia and the Prefect's Office of La Spezia. Offer Plan). The project was initially offered to schools in the Province of La Spezia (ERINat 2005 and 2006). ERINat 2007 was experimentally addressed only at schools in the town of La Spezia. ERINat 2008 once again took in the towns of the province, with the exclusion of La Spezia. To meet the numerous requests, since ERINat 2009 all the final year classes of the lower secondary schools in the Province of La Spezia have been given the chance to take part in the project which is included in the POF (Training Offer Plan).

The INGV (Istituto Nazionale di Geofisica e Vulcanologia) of Portovenere, manages the organization and realization of the project which envisages interactive lessons in the classroom with students in their final year of the Province of La Spezia's lower secondary schools. Informational material is handed out at the end of the lessons for subsequent reflection with teachers, families and peer groups (Peer Education) and evacuation drills are carried out under the guidance of the Fire Brigade assisted by the volunteers from the Civil Protection Associations of the Province of La Spezia. In ERINat 2005, 2006, 2007 and 2008 the lessons lasted around two hours and were held by

INGV research staff and personnel from the Fire Brigade.

The success of the initiative (Fig. 2, 3) and the growing number of enrolments (Fig.1) have encouraged the organizers to plan ERINat in greater detail and turn it into an educational process that places greater emphasis on self-protection measures and the behaviour to adopt in the case of natural disasters, teaching the participants how to tackle natural risks and their potential destructive effects and how to adapt incorrect individual and collective behaviour. The contents have been supplemented and the number of lessons doubled; the hydro-geomorphological risk (lesson given by experts from the

Provincial Authorities of La Spezia) and the question of forest fires (organized by the State Forest Rangers Corps of La Spezia) have been included alongside the seismic risk and what to do in the event of an earthquake. This is because of the vulnerability of the territory; just think of the recent events: fire at Riomaggiore on 15 October 2011 and the tragic flood of 25 October 2011 which brought the zone to its knees.

Progetto ERINAT 2005
(Educazione ai Rischii NATurali)

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Progetto ERINAT 2011
(Educazione ai Rischii NATurali)

Progetto ERINAT 2012
(Educazione ai Rischii NATurali)

Progetto ERINAT 2009 (Educazione ai Rischii NATurali)

Scuole Secondarie di I grado

- "P. Basterri" ARCOLA
- "A. Manzoni" BOLANO
- "A. Frank" BRUGNATO
- "D. Alighieri" CASTELNUOVO MAGRA
- "G. di Giona" LE GRAZIE
- "POGGI" LERICI
- "P. MANTEGAZZA" SAN TEREZIO

Progetto ERINAT 2010 (Educazione ai Rischii NATurali)

Scuole Secondarie di I grado della Provincia della Spezia

- "A. Manzoni" BOLANO
- "A. Frank" BRUGNATO
- "D. Alighieri" CASTELNUOVO MAGRA
- "Poggi/Mantegazza" LERICI
- "M. Sironi" RICCO' DEL GOLFO
- "A. Schiaffini" S. STEFANO DI MAGRA
- "Piaget/2 Giugno" LA SPEZIA
- "Affieri/Mazzini" LA SPEZIA
- "Fontana/Cervi" LA SPEZIA
- "A. Cervi" LA SPEZIA
- "M. Fontana" LA SPEZIA
- "U. Formentini" LA SPEZIA
- "C. Cattaneo" MELARA
- "M. Fontana" LA SPEZIA
- "G. Mazzini" LA SPEZIA
- "S. Pellico" LA SPEZIA
- "P. Piaget" LA SPEZIA
- "2 GIUGNO" LA SPEZIA
- "T. SIGNORINI" RIOMAGGIORE

Progetto ERINAT 2011 (Educazione ai Rischii NATurali)

Scuole Secondarie di primo grado della Provincia della Spezia

- ISA 1 - "P. Piaget" LA SPEZIA
- ISA 2 - "2 Giugno" LA SPEZIA
- ISA 3 - "V. Affieri" LA SPEZIA
- ISA 4 - "U. Formentini" FABIANO
- ISA 5 - "S. Pellico" LA SPEZIA
- ISA 6 - "A. Frank" LA SPEZIA
- ISA 7 - "M. Fontana" LA SPEZIA
- ISA 8 - "U. Formentini" LA SPEZIA
- ISA 9 - "C. di Giona" LE GRAZIE
- ISA 10 - "T. Signorini" RIOMAGGIORE
- ISA 11 - "Poggi" LERICI
- ISA 12 - "P. Mantegazza" SAN TEREZIO
- ISA 13 - "D. Alighieri" CASTELNUOVO MAGRA
- ISA 14 - "P. Piaget" LA SPEZIA
- ISA 15 - "A. Schiaffini" S. STEFANO DI MAGRA
- ISA 16 - "M. Sironi" RICCO' DEL GOLFO
- ISA 17 - "A. Frank" BRUGNATO
- ISA 18 - "P. Borrotzu" SESTA GODANO
- ISA 19 - "Don Bobbio" VARESE LIGURE
- ISA 20 - "P. Mantegazza" SAN TEREZIO
- ISA 21 - "S. D'Acquisto" FOLLO e PIANA BATTOLLA
- ISA 22 - "A. Frank" BRUGNATO
- ISA 23 - "P. Borrotzu" SESTA GODANO
- ISA 24 - "Don Bobbio" VARESE LIGURE
- ISA 25 - "F. Petrarca" LEVANTO e DEIVA MARINA

THE KEYS TO THE PROJECT'S SUCCESS

The strengths of the project are the research of stimulating didactic and communication models; the choice of trainers who come directly from risk management organizations, the future reference people for citizens and volunteers; the high level of motivation, sharing and transparency among the team members; the transferability of the project to other Provinces and Regions and other sectors of the same organization and others.

ERINat is one of the most significant initiatives of the project developed by the Province of La Spezia "Piano di attuazione e miglioramento in itinere di un processo formativo nell'ambito della prevenzione dei rischi naturali" ("Implementation plan and ongoing improvement of an educational process on natural risk prevention") for which it won an award in the competition "Premiamo i risultati" ("We reward results") promoted by the Ministry of Public Administration and Innovation (Rome, 17 May 2010, ForumPA conference).

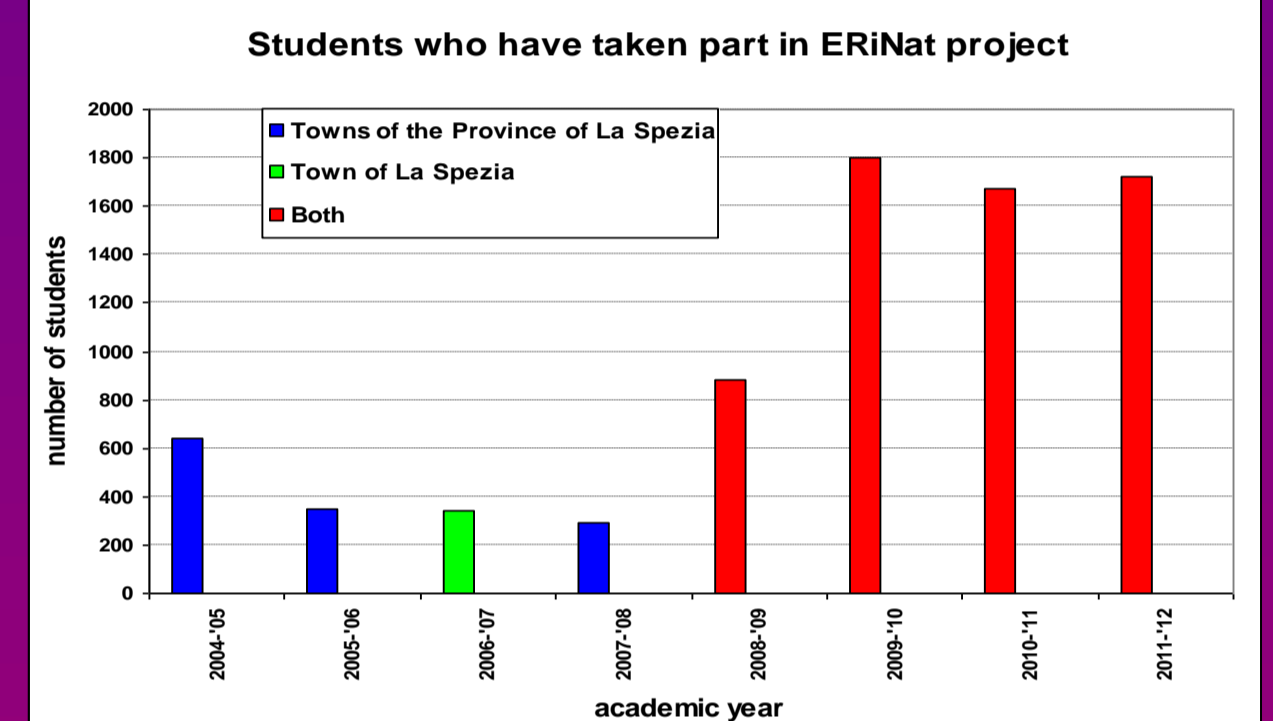


Fig. 1. Number of students who have taken part in ERINat.

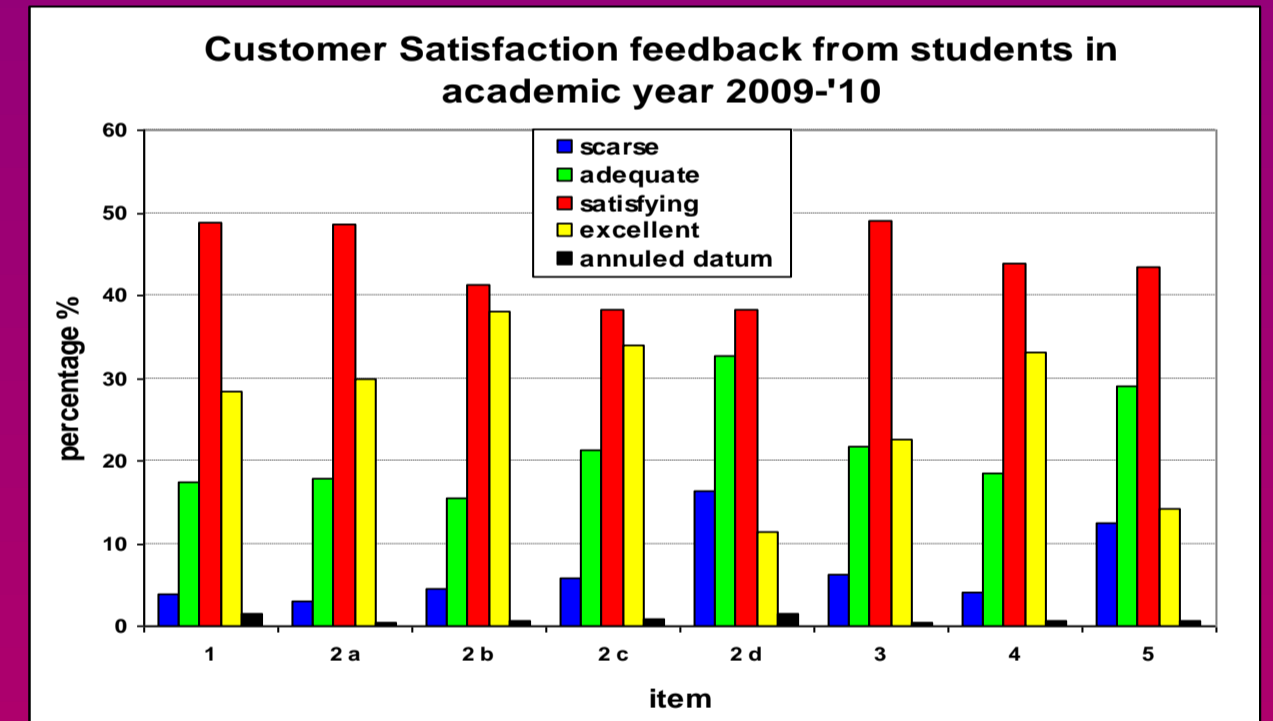


Fig. 2. Customer Satisfaction feedback from the students who took part in the ERINat Project in academic year 2009/2010.

Question	Response
1	What is your opinion on the politeness, openness and friendliness of the ERINat teachers?
2	How did the teachers deal with the subjects:
2 a	Seismic risk
2 b	Tackling an emergency
2 c	Forest fire risk
2 d	Hydrogeological risk
3	How interested were you in the subjects dealt with?
4	How will what you have learned help you to tackle emergencies?
5	How did the ERINat lessons help you with the study of your normal school subjects?

Fig. 3. Questions included in the Customer Satisfaction questionnaire filled in by students in academic year 2009/2010 and represented in fig. 2.

CONCLUSIONS

The ERINat project (Training on Natural Risks) has been educating students from La Spezia and, in an indirect way, the adults in their family, on safety since 2004. The project aims to encourage the community to take an active part for the good of all. Unfortunately, natural risks cannot be eliminated and the recent floods in our area are proof that anything can happen. Even to us. We have to be aware of this. Sometimes a little is enough to save your own life and that of others but you have to know exactly what to do. It is for this reason that citizens must be trained and informed, starting from the youngest, through a permanent training process.

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REFERENCES

- AGOSTI A., FRANCESCHINI G., GALANTI M. A. (2009) - *Didattica. Struttura, evoluzione e modelli*. CLUEB Editore. pp. 268.
- CALVANI A., RANIERI M., BONAIUTI G. (2007) - *Fondamenti di didattica. Teoria e prassi dei dispositivi formativi*. Carrocci Editore. pp. 241.
- ANGIOLINO A. (2003) - *Terremoti come e perchè*, INGV - Giunti Progetti Educativi, Firenze.
- SIDOTI B. (2005) - *A prova di terremoto. Laboratori e attività per la scuola*, INGV - Giunti Progetti Educativi, Firenze.

ERINat competition

Since ERINat 2009 the Province of La Spezia has promoted a competition every year to encourage in-depth study of the subjects dealt with. The prize for the schools of the three winning classes is teaching equipment and material for a value of € 1200, 800 and 500 respectively for the first, second and third classified and the students from the three winning classes take part in a guided tour by the Forest Rangers Corps, GEV (Voluntary Ecological Guards) and volunteers from the Civil Protection Service of the Province of La Spezia by means of transport kindly provided by the Navy.



The winners of ERINat 2012 competition

Free summer campuses

"Anch'io sono la Protezione Civile"
(I am the Civil Protection too)

Within the framework of ERINat 2011, the Province of La Spezia and the Provincial Coordination of Civil Protection Associations also organize these campuses which are open to all children from the province but priority is given to those from schools that have taken part in the ERINat Project as a reward for their commitment. The campuses are greatly appreciated by the children and their families both for their didactic/educational value (conclusion and completion of the ERINat course) and for their fun/recreational activities such as climbing with Mountain Rescue, overnight camping, fire-fighting drills with the Fire Brigade and nature trails.

