

Exploring risk communication – results of a research project focussed on effectiveness evaluation

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The need for effective science communication and outreach efforts is widely acknowledged in the academic community. In the field of Disaster Risk Reduction, the importance of communication is clearly stressed, e.g. in the newly adopted Sendai Framework for Disaster Risk Reduction 2015-2030 (under the 1st priority of action: understanding disaster risk). Consequently, we see increasing risk communication activities. However, the effectiveness of these activities is rarely evaluated. To address this gap, several research activities were conducted in the context of the Marie Curie Initial Training Network “Changes”, the results of which we will present and discuss.

First, results of a literature review show, among others, that research on effectiveness is mainly focussed on the assessment of users’ needs and their ability to understand the content, rather than on the final impact of the risk communication efforts. Moreover, lab-environment research is more often undertaken than assessment of real communication efforts.

Second, a comparison between perceptions of risk managers and the general public of risk communication in a French Alps Valley highlighted a gap between the two groups in terms of amount of information needed (who wants more), the important topics to address (what) and the media to use (how).

Third, interviews with developers of smartphone applications for disseminating avalanche risk information showed a variety of current practices and the absence of measurements of real their effectiveness. However, our analysis allowed identifying good practices that can be an inspiration for risk communication related to other hazards.

Fourth, an exhibition has been set up following a collaborative approach based on stakeholder engagement. Using a pre/post-test design, the immediate impact of the exhibition, which aimed at increasing the risk awareness of the population (Ubaye Valley, France), was measured. The data obtained suggests that visiting the exhibition increased risk awareness. It appeared that general indicators to measure change in risk awareness, such as perceived awareness or vulnerability, are more powerful than specific ones, such as perceived consequences of a given natural hazard event. Moreover, although the collaborative process was not formally assessed, we observed that the development of the exhibition promoted relationships between stakeholders, the engagement of local stakeholders in science, the exchange between generations, and further communication efforts.

This broad collection of research activities applied addressed different viewpoints on the topic of the effectiveness of risk communication related to natural hazards. The evaluation of existing practices allowed identifying current limitations of risk communication and helped develop a research design that enables testing the effectiveness of a real communication effort. Based on this research, recommendations for risk communication applications and further evaluation research can be made.