



## **One exhibition, many goals. Combining scientific research and risk communication**

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How effective is visual communication to increase awareness of natural hazards and risks? To answer this research question, we developed a research design that was at the same time an experimental setting and an actual communication effort.

Throughout the full length of the 2-years project held in the Ubaye valley (southeastern France), we collaborated with local and regional stakeholders (politicians and technicians). During a consultation phase, the communication context was determined, the audience of the project was defined and finally the testing activity-communication effort was determined. We were offered the opportunity to design an exhibition for the local public library. In a consultation phase that corresponded to the design of the exhibition, the stakeholders contributed to its content as well as helping with the funding of the exhibition. Finally, during the experimentation phase, the stakeholders participated in advertising the activity, gathering of participants and designing the scientific survey.

In order to assess the effects of the exhibition on risk awareness, several groups of children, teenagers and adults were submitted to a research design, consisting of 1) a pre-test, 2) the visit of the exhibition and 3) a post-test similar to the pre-test. In addition, the children answered a second post-test 3 months after the visit. Close ended questions addressed the awareness indicators mentioned in the literature, i.e. worry level, previous experiences with natural hazards events, exposure to awareness raising, ability to mitigate/respond/prepare, attitude to risk, and demographics. In addition, the post-test included several satisfaction questions concerning the visual tools displayed in the exhibition. A statistical analysis of the changes between the pre- and post- tests (paired t-test, Wilcoxon signed-rank test and bootstrapping) allowed to verify whether the exhibition had an impact on risk awareness or not. In order to deduce which variable influenced the observed changes, an ordinal regression was performed. In addition, to deduce the attractiveness of each visual tool independently, the visitors' paths were tracked using RFID (Radio Frequency Identification) technique, from which their time spent around certain visuals could be assessed.

While the process of creating an exhibition as a real communication effort and a testing activity will be discussed, the results of the experiment will be presented. In particular, we will show for which natural hazard the most awareness changes were measured and with which factors they are assessed. Moreover, the attractiveness of each visual tools will be presented.