

Title	Research Report 93: Effective design of workplace risk communications
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Executive Summary	<p>1.1 Background.</p> <p>The main focus of this research programme has been to explore the influence of risk communication design features with respect to workers intentions to follow safe working practices. The following design features were explored: (1) Usability (how easy is the material to read, remember and comprehend), (2) Usefulness (is the material relevant to the target audience) and (3) message framing effects (what is the influence of presenting the same risk information as positives or negatives). A negative frame highlights the negative consequences of not adopting safe working practices and a positive frame emphasise the benefits of adopting safe working practices. Positive frames should be beneficial for prevention behaviours (e.g., wearing ear defenders) and negative frames beneficial for detection behaviours (e.g., monitoring systems). These latter design features have never been explored in the context of occupational risk communication before. However, the general health promotion literature suggests that messages that are appropriately framed for the target behaviour, and are also usable and useful will have an impact on behavioural intentions.</p> <p>1.2 Methods.</p> <p>The work focused on two prevention behaviours: (1) the use of ear defenders and (2) manual handling. A mixture of qualitative and quantitative methods was used. Qualitative analyses involved content analyses of a sample of current HSE risk communication leaflets. The quantitative analyses examined objective measures of readability and comprehensibility of HSE and specially designed leaflets. This was supplemented by quasi-experimental surveys and interventions studies. For the work on ear defenders samples were drawn from the mining industry and foundries. For the manual handling studies samples were drawn from a wide spectrum of health care professionals.</p> <p>1.3 Findings.</p> <p>There are 5 main findings.</p> <ul style="list-style-type: none"> • On average current HSE leaflets have an objective reading age that is higher than desired and at a level of comprehensibility suited to undergraduates. The sample analysed in this project contained primarily negatively framed information. • Redesigning messages improved their objective and subjective usability (ease to read and understand). • Workers intentions to adopt safe working practice were influenced by the usability and usefulness of the risk communication leaflets. This effect of usability and usefulness was in addition to effects attributed to demographic factors and perceptions of risk and worry. Therefore, communication design is a very important consideration when trying to influence safe working practice. • Risk communications (specifically designed for the study) framed as ‘positives’ (the long-term benefits of adopting safe working practices) were generally more influential on intentions to act than negative frames or the current sample of HSE leaflet(s). However, there was evidence that prior-exposure to negative health outcomes (in this case either back pain or deafness) or past-behaviour (i.e., the extent to which PPE has been used in the past) influenced the effectiveness of positive and negative frames. This indicates that when targeting specific groups for an intervention, information on their prior-exposure and

	<p>past-behaviour should be taken into account.</p> <ul style="list-style-type: none"> • While frame and usability /usefulness of leaflet design were consistently related to cognitions associated with safe working practice, effects of narrative structure were less robust. An equal balance between consequences and solutions however, should be maintained. <p>1.4 Implications.</p> <p>When designing risk communication messages they should primarily be designed to maximise their usability and usefulness. Furthermore, if the behaviour is a prevention behaviour (e.g., wearing ear defenders) then framing the message to emphasise the benefits of adopting safe working practise (a positive framed message) should be considered.</p>																																																																																																						
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