

# **Linguistic and location effects in compliance to pesticide warning labels**

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*Judy Edworthy, Elizabeth Hellier, Nicola Lambell,*

*Clare Grey, Kirsteen Aldrich, & Andrew Lee*

*Department of Psychology, University of Plymouth,*

*Plymouth, United Kingdom*

Experimental studies investigated the effect of the location of safety information on observed compliance behaviour. It was revealed that for all users, presenting safety information in the directions for use section resulted in the highest levels of compliance. For amateurs presenting safety information in an additional leaflet resulted in the lowest levels of compliance, whereas for professionals the lowest levels of compliance were demonstrated when safety information was presented the statutory box and precautions sections. Predictions made on the basis of this work were tested in a second study where effective and ineffective means of linguistic expression (derived from earlier studies) were combined with effective and ineffective locations for safety information. We successfully predicted that personal instruction statements presented in the directions for use resulted in the highest levels of compliance. Important differences between amateurs and professionals are revealed and discussed.

## **Introduction**

One area in which there has been relatively little research focus has been on the contrast between expert and novice users in work areas where there are clear risks, and where professional users are usually trained both in the use of the product and in appropriate safety procedures. Such an area is that of pesticide use, where professionals can be exposed to quite dangerous levels of pesticide if used, for example, in a large-scale agricultural setting on a day-to-day basis. Additionally, labels and additional information in the form of leaflets and so on are often mandated by law. In such an area we would expect to see differences between professionals and amateurs, and for these two groups to have quite distinct mental models of the process itself and the safety procedures they are likely to carry out. Familiarity has been shown typically to reduce levels of compliance, but it would be quite unexpected, for example, for professionals to demonstrate lower levels of compliance than amateurs, even though they will be much more familiar with the products. A broad-based analysis of behaviour such as Rasmussen's skill-, rule- and knowledge-based approach (Rasmussen, 1981) might serve as an appropriate framework for looking at the differences between expert and amateur users, as the

In D. de Waard, K.A. Brookhuis, J. Moraal, and A. Toffetti (2002), *Human Factors in Transportation, Communication, Health, and the Workplace* (pp. 435 - 444). Maastricht, the Netherlands: Shaker.