

of reported false memories (i.e. the proportion of *yes* responses). The target event used in this study was the assassination of Pim Fortuyn, a famous Dutch politician, in 2002. One group was asked an ambiguous question (Did you see the amateur film of the Fortuyn shooting?), a second group received a more specific misleading question (Did you see the amateur film of the moment Fortuyn was shot by Volkert van der G.?), a third group got a specific low-suggestive question (Did you see an amateur film of the moment Fortuyn was shot by Volkert van der G.?) and a fourth group was asked a neutral non-suggestive open question (Do you remember whether there was a film of the moment Fortuyn was shot by Volkert van der G.?).

The results show that overall many respondents report having seen the footage (38%), but the proportion varied between 27% and 63% depending on the wording of the question. The highest percentage of misreports was for the ambiguous question, suggesting that the respondents assumed it was about footage of the events surrounding the murder, rather than the murder itself. Even the neutral question in the fourth group misled 27% of the respondents. Grice's maxims may be an explanation for this: if a question is asked, respondents assume that the information in it is as clear as possible and trustworthy. Unlike previous work by Loftus, no differences were found between the second and third group (*the vs a*); maybe this manipulation of specificity was too subtle in this case.

(Bregje Holleman)

Designing good surveys

J.D. Smyth, D.A. Dillman, L.M. Christian, M.J. Stern (2006). **Comparing check-all and forced-choice question formats in web surveys.** *Public Opinion Quarterly*, 70 (1), 66-77.

A question format that is often used in web surveys and in paper surveys is the *check all that apply* question, in which respondents are asked to mark all options that are appropriate from a list of response options. In telephone surveys, this format is considered to be too complicated for the interviewer as well as the respondent. In these interviews, usually a forced-choice question is chosen where respondents provide an answer for each item in the list. The assumption is that both different question formats illicit similar answers. The issue raised in this article is whether that assumption is correct, as different response strategies may be used in both question formats. In a *check all* question, respondents can opt for a quick answer and satisfy the researcher by checking the first option that is plausible, and not reading the others. In the *yes/no* format, they are forced to read and elaborate on every item in the list.

Data in this paper suggest that this difference in processing does exist. Both question types were compared in web surveys, using questions about behaviours/facts as well as about opinions/attitudes. Results show that a list of items in a check all format results in less options being selected compared to a forced-choice yes/no format. When answering forced-choice questions, respondents spend more time, suggesting a deeper

processing level. This seems to suggest that the options selected by respondents in check-all questions is a less valid reflection of their true opinion or behaviour, but external validation checks are needed to confirm this. Furthermore it would be interesting to investigate how medium choice affects question processing by comparing the answers to both question formats in written (web or paper surveys) vs. aural modes (telephone surveys).

(Bregje Holleman)

Instruction

M. Lee, M. Tedder and G. Xie (2006). **Effective computer text design to enhance readers' recall: text formats, individual working memory capacity and content type.** *Journal of Technical Writing and Communication*, 36 (1), 57-73.

Several studies have examined differences in learning from various hypertext formats. In this study these findings are re-examined across different types of content, exploring how individuals' recall performance was mediated by text format, content type and working memory capacity. The types of content were *ordered constructs*, where a cohesive understanding of the whole depends upon having read the text from first to last paragraph, like a recipe; *blocked constructs* that may be broken into logically independent excerpts; and *detail layered constructs* where subject matter is presented in successive depths of detail. Three texts in one of these conditions were read by 77 participants, who also performed a test on working memory capacity and recall of each of the texts. The

authors conclude that effects of presentation format differed for the three content types and for differences in working memory capacity. An interaction effect was found for the ordered content type: participants with low working memory capacity performed better in the scrolling format, while those with high working memory capacity performed best in the paged presentation format. For the blocked type of content the second group performed better in both conditions and for the third type of content the only effect was found in the first group who performed better in the paged presentation format. The authors conclude that instructional designers should take advantage of different text formats in response to both the potential users' individual memory characteristics and the kind of information to be presented.

(Leo Lentz)

K. Papanikolaou, A. Mabbott, S. Bull and M. Grigoriadou (2006). **Designing learner-controlled educational interactions based on learning/cognitive style and learner behaviour.** *Interacting with Computers*, 18 (3), 356-384.

Educational psychologists such as Kolb and Schmeck have shown that learners differ in the cognitive styles they use for learning tasks. How to design a web-based learning environment that supports alternatives for users with different approaches to learning? In this article two examples of adaptive educational systems are presented, based on different dimensions of learning styles. The first system enabled learners to adapt the system to a visual or textual preference, a sequential or hierarchical sequence of elements, and to a more sensing (careful, patient) or intuitive/speculative learning style. The second system offered multiple views of educational material corresponding to different styles as: activist (based