

## Designing Effective Scale Questions Online

### What Are the Issues?

A growing amount of literature over the past few years has focused on instrument design as an important factor in mitigating the extent of measurement error. The placement of questions, font size and type, questionnaire structure and flow all play a role, especially in self-administered surveys, such as web surveys (Sudman, Bradburn & Schwartz, 1996 as in Couper, 2000:476; Couper, Traugott & Lamias, 2001; Christian, Dillman & Smyth, 2005)<sup>1</sup>.

Research has shown that the presentation of scale questions has a significant effect on the way respondents answer. In particular, research has shown that mode makes a significant difference in response patterns to attitudinal scale questions (Christian, Dillman & Smyth, 2005).

Telephone respondents are more likely to provide highly positive ratings to scale questions and are more likely to select the extreme positive response than are web survey takers. Nadel, Hogg & Miller (2000) note that non-labeled or partially labeled purchase intent questions used in forecasting were most affected by these mode differences. The same study indicates that differences in importance and loyalty response distributions, did not significantly affect a segmentation model that included both phone and internet respondents. Specifically, the authors recommend that,

*as long as numerical scales with verbal anchors are used to attribute importance and performance ratings [loyalty and customer satisfaction studies can successfully transferred to the web]. Even when questions relating to overall satisfaction and loyalty are completely verbally anchored, greater consistency among web respondent answers can lead to identical overall scores when findings are combined (2000:4).*

Long-standing research has also shown (albeit with some inconsistent findings) that telephone respondents tend to provide more positive responses to scale questions than any type of respondent who is presented with a visual cue, whether that is a mail questionnaire or a show-card during an in-person interview (Groves, 1979; Jordan, Marcus & Reeder, 1980; De Leeuw, 1992). Given the consistency of the findings across modes, social reliability can be excluded as an explanation for this phenomenon and hypotheses are focused on cognitive processes.

Regardless of the underlying cause of the issue, to date, no successful methodology has been developed that allows us to overcome mode effects on scale questions through redesign or different presentation of such scales.

Christian, Dillman & Smyth (2005) suggest branching as a possible alternative to single scales. Some research in this area (Krosnick & Berent, 1993; Groves, 1979) indicates that data quality improves when scale questions are split between one question asking about the general direction of the respondent's attitudes (e.g., positive or negative), and a subsequent question that asks the respondent to specify the degree or intensity of the attitude (e.g., very positive, somewhat positive, etc.).

<sup>1</sup> Among the design findings and recommendations for internet surveys are: Couper, Tourangeau & Lamias (2001) found that showing a progress bar on the survey that allows the respondent to tell how much of the survey is completed has a positive impact on survey completion rates; Shonlau, Fricker & Elliot (2002) showed that placing fewer questions on a single page which lessens the reading burden on respondents has a positive impact by reducing respondent frustration.

Our own research in the area of consumer goods and media has pointed at differences between online and telephone responses to brand and product awareness questions. Specifically, research we conducted in Spain in 2006 on behalf of a consumer goods company indicated that product and brand awareness tends to be higher online than on the phone. In general, online respondents seem to have a higher recall of advertising media. However, when brand awareness rankings were compared, no significant differences were found. The same products ranked at the top or the bottom of the awareness list for both online and telephone respondents.

### Can You Be Sure Your Vendor is Delivering Quality Data?

- Do they**
- Monitor ISP delivery performance on every survey?
  - Monitor global blacklists for compliance?
  - Conduct pilot testing all survey invitations for “Spamness”?
  - Have a dedicated Online Quality and Compliance team?
  - Protect Respondent & Data Privacy with compliance with Health Insurance Portability & Accountability Act (HIPAA), Gramm-Leach-Bliley Act, US/EU Safe Harbor principles, Children’s Online Privacy Protection Rule (COPPA) and adherence to CASRO & ESOMAR privacy policies?

### About the GfK Research Center for Excellence

The GfK Research Center for Excellence—our in-house think tank of researchers expert in Online Strategy, Statistical Sampling and traditional Marketing Science—has developed a set of proven best practices for research and project design that help ensure your survey results are accurate and reliable. As a member of the GfK Group, GfK Custom Research North America can access MRI’s database which may be used to establish sampling distributions as well as examine category and brand usage across the on-line and off-line populations.

Questions about research design? Online methodology? Or data quality? Contact your GfK Representative at [info@gfkamerica.com](mailto:info@gfkamerica.com) or (212) 240-5300.

### Some References

Couper, M. (2000) “Review: Web Surveys: A Review of Issues and Approaches,” *Public Opinion Quarterly*, Vol. 64, No. 4, pp. 464-494

Dillman, D., G. Phelps, R. Tortora, K. Swift, J. Kohrell, & J. Berck (2001) “Response Rate and Measurement Differences in Mixed Mode Surveys, Using Mail, Telephone, IVR and the Internet,” [http://www.sesrc.wsu.edu/dillman/papers/Mixed%20Mode%20ppr%20\\_with%20Gallup\\_%20POQ.pdf](http://www.sesrc.wsu.edu/dillman/papers/Mixed%20Mode%20ppr%20_with%20Gallup_%20POQ.pdf)

Dillman, Don & L. Christian (2003) “Survey Mode as a Source of Instability in Responses Across Surveys,” *Workshop on Stability of Data Collection Methods*



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