

## Survey Design: Best Practice

This paper presents a synthesis of relevant literature regarding best practice in the design of hardcopy survey forms. A range of academic and professional literature has been consulted. While this reference list is by no means exhaustive, it does represent a consensus of professional opinion regarding good practices in hardcopy survey form design and layout.

### Designing survey items

A number of guidelines regarding the development and ordering of effective survey items can be found in the research methodology body of literature (*cf.* Aaker, Kumar & Day 1998; Bradburn, Sudman & Wansink 2004; Dillman 2007; Knowles 1975; Sudman & Bradburn 1982; Zikmund 2003).

- Items should be as succinct as possible
- Simple, conversational language should be used
- Spelling and grammar must be accurate
- Leading questions (which imply certain answers) and loaded questions (which suggest a socially desirable answer or are emotionally charged) should be avoided
- Items should be as specific as possible (e.g. avoid terms such as *often, occasionally, frequently* etc. as these terms may have different meanings to different respondents)
- Double-barrelled questions (those which address two issues at once) should be avoided
- All reasonable response alternatives should be included
- The timeframe of the question should be based on how salient or memorable the topic is
- Easy, non-threatening questions should be placed at the beginning of the questionnaire to encourage participation, while sensitive or objectionable questions should go towards the end
- Items should be grouped by topic and placed in a logical order so that the respondent can focus, organise their thoughts and respond accordingly.

### Respondent instructions

When a questionnaire is to be completed unsupervised (e.g. mail/online survey instruments), a covering letter and instructions are required (Brace 2008; StatPac 2009). Although some sources suggest that a covering letter may be printed on the front page of the survey instrument (e.g. Brace 2008), the extended introductory text which used to occupy half of the first page of the AGS survey instrument was removed because feedback from graduates suggested that it was rarely read and gave the form a text heavy appearance which increased the form's response burden (GCA 2006).

Clear and concise instructions are critical in terms of collecting accurate data (Iarossi 2006; StatPac 2009). The instructions must be clearly distinguishable from the questions being asked. An effective way of eliminating confusion between instructions and question text is to use different fonts or formats for the instructions and questions (Bourque & Fielder 1995). General information about how the questions should be answered (e.g. "please mark only ONE BOX, unless instructed") should be placed at the beginning of the questionnaire, while specific instructions pertaining to individual questions should be placed as close as possible to the particular question (Sudman & Bradburn 1982).

## Data entry instructions/coding marks

Data entry instructions and coding marks which are printed on the survey form for the benefit of data entry personnel should be kept as unobtrusive as possible. Coding marks need not be included on questionnaires which are to be scanned and coded using an Optical Mark Reader (OMR) (Brace 2008; McCormack & Hill 1997). Eliminating these coding marks helps to remove some of the visual clutter from the page, which enhances the attractiveness and readability of the survey form.

Printing numeric coding marks on a survey form may suggest a hierarchy of responses to survey respondents, which can introduce bias in to the survey results (Brace 2008). This can be negated by removing numerical coding marks from the survey form altogether.

## Instrument design and layout

A well-formatted survey instrument makes it easier for respondents to read and complete (Bradburn, Sudman & Wansink 2004). It may also reduce measurement error as respondents will be more likely to follow the flow of the survey and less likely to misread or overlook questions (Dillman 2007). Thus, respondents' needs should be the guiding priority when designing a survey instrument (Bradburn, Sudman & Wansink 2004).

Crowding questions together to save space is ultimately uneconomical if it compromises data accuracy (Iarossi 2006). For longer questionnaires, a less cramped layout with more "white space" looks easier to complete, which generally results in higher response rates and fewer respondent errors (Aaker, Kumar & Day 1998; Sudman & Bradburn 1982).

Individual items should also be equally spaced throughout the questionnaire have sufficient blank space between them to ensure that respondents can easily tell where one question ends and another begins so that they can address each question fully (Gray et al. 2007). Additionally, sufficient space should also be provided for open-response questions because respondents typically interpret the amount of space provided as an implicit indicator of the amount of detail required in a response. In cases where a relatively short open-ended response is required, it is recommended that lines are provided on which respondents may write their response (Layne & Thompson 1981; Sudman & Bradburn 1982; Trice & Dolan 1985).

There are a range of other layout considerations which need to be addressed when designing a questionnaire (*cf.* Bourque & Fielder 1995; Brace 2008; Dillman 1978; Sudman & Bradburn 1982):

- Printing should be of good quality, with printing on one side of the page unable to be seen from the other side through the paper
- Using different colours can increase the questionnaire if used sparingly (although the colours used on the AGS forms are dictated by the requirements of the optical scanning process)
- There should be a good contrast between print and paper, particularly to enhance the readability of the survey form for the visually impaired. Bourque and Fielder (1995) suggested that, when in doubt, use black print on a white background
- The front page of the questionnaire should include the title of the survey (which should ideally convey the purpose of the survey in an interesting yet neutral manner), the identity of the organisation carrying out the survey and *brief* instructions to the respondent.

## References

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