**Points to consider when writing a questionnaire**

***Design of Questionnaire***

1. Use precise terminology for each question. For example, the question “What kind of drugs do you take?” can be interpreted to mean illegal or legal drugs.

**Question Wording**

The wording of a question is extremely important. Researchers strive for objectivity in surveys and, therefore, must be careful not to lead the respondent into giving the answer a desired answer. Unfortunately, the effects of question wording are one of the least understood areas of questionnaire research.

Many investigators have confirmed that slight changes in the way questions are worded can have a significant impact on how people respond (Arndt and Crane, 1975; Belkin and Lieverman, 1967; Cantril, 1944; Kalton, Collins, and Brook, 1978; Petty, Rennier and Cacioppo, 198; Rasinski, 1989; Schuman and Presser, 1981, 1977; ). Several authors have reported that minor changes in question wording can produce more than a 25 percent difference in people's opinions (Payne, 1951; Rasinski, 1989).

Investigators have looked at the effects of modifying adjectives and adverbs (Bradburn and Miles, 1979; Hoyt, 1972; Schaeffer, 1991). Words like *usually*, *often*, *sometimes*, *occasionally*, *seldom*, and *rarely* are "commonly" used in questionnaires, although it is clear that they do not mean the same thing to all people. Simpson (1944), and a replication by Hakel (1968), looked at twenty modifying adjectives and adverbs. These researchers found that the precise meanings of these words varied widely between subjects, and between the two studies. However, the correlation between the two studies with respect to the relative ranking of the words was .99.

John Hoyt (1972) conducted a study on how people interpret quantifying adjectives. The results show that some of the adjectives had high variability and others had low variability.

The following adjectives were found to have highly variable meanings: *a clear mandate, most, numerous, a substantial majority, a minority of, a large proportion of, a significant number* *of, many, a considerable number of*, and *several*.

Other adjectives produced less variability and generally had shared meaning. These were: *lots, almost all, virtually all, nearly all, a majority of, a consensus of, a small number of, not very many of, almost none, a damn few*, *hardly any, a couple,* and *a few*.

1. Write questions as simply as possible. For example, write “Rate how you feel about yourself” not “Rate your self-relevant affect on the following scales”.

**The Length of a Questionnaire**

As a general rule, long questionnaires get less response than short questionnaires (Brown, 1965; Leslie, 1970). However, some studies have shown that the length of a questionnaire does not necessarily affect response (Berdie, 1973; Champion and Sear, 1979; Childers and Ferrell, 1979; Duncan, 1979; Layne and Thompson, 1981; Mason Dressel, and Bain, 1961). "Seemingly more important than length is question content." (Berdie, Anderson, and Niebuhr, 1986, p. 53) A subject is more likely to respond if they are involved and interested in the research topic (Bauer, 1947; Brown and Wilkins, 1978; Reid, 1942; Speer and Zold, 1971). Questions should be meaningful and interesting to the respondent.

1. Don't make assumptions. For example, the question “How do you feel about your mother?” assumes the subject knows his or her mother.
2. Choose an appropriate response format – response format is the manner in which the subject indicates or notes his or her responses. There are different response formats:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type** | **Definition** | **Advantages** | | **Disadvantages** |
| free response format | subject fills in a blank or writes an unstructured response to the question. | More detail | | Unstructured – difficult to analyse, particularly with statistics |
| True/false format | Subject indicates ***statement*** is true or false | Good for questions of fact (e.g. Do you work in an office)  easy to analyse, particularly with statistics | | Not good for questions measuring attitudes or feelings  little detail |
| Rating scale response format | Used to ask about things that vary in frequency or intensity e.g. How do you feel about capital punishment? | good for questions measuring attitudes or feelings  easy to analyse, particularly with statistics  more detail than true/false or multiple choice formats  best scales – 4 or 6 point scales | | Less detail than free response format  Not good when used with 3 or 5 point scales |
| Multiple choice or fixed alternative response format | Subjects choose one response (or more) from a set of possible alternatives | | good for questions measuring attitudes or feelings  easy to analyse, particularly with statistics  more detail than true/false format  best number of alternatives – 3 - 4 responses | Less detail than free response format  Not good when used with > 5 alternatives |

**The "Don't Know", "Undecided", and "Neutral" Response Options**

Response categories are developed for questions in order to facilitate the process of coding and analysis. Many studies have looked at the effects of presenting a "don't know" option in attitudinal questions (Bishop, Tuchfarber, and Oldendick, 1986; Bishop, Oldendick, and Tuchfarber, 1983, 1978; Bishop et al., 1980; Schuman and Presser, 1981, 1978). The "don't know" option allows respondents to state that they have no opinion or have not thought about a particular issue (Poe et al., 1988).

Bishop (1987) also found that the physical location of the middle alternative can make a difference in responses, and that placing the middle option at the last position in the question increased the percentage of respondents who selected it by over 9 percent. The middle option of an attitudinal scale attracts a substantial number of respondents who might be unsure of their opinion.

Poe et al. (1988) studied the "don't know" option for factual questions. Unlike attitude questions, respondents might legitimately not know the answer to a factual question. Their findings suggest that the "don't know" option should not be included in factual questions. Questions that excluded the "don't know" option produced a greater volume of accurate data. Poe's finding directly contradict several previous authors who advocate including a "don't know" response category when there is any possibility that the respondent may not know the answer to a question (Bartholomew, 1963; Jahoda, Deutsch, and Cook, 1962; Payne, 1951).

**Colour of the Paper**

One study found that the colour of the paper (yellow, pink, and white) did not have an effect on response (Sharma and Singh, 1967). Nevertheless, Berdie, Anderson and Neibuhr (1986) suggest that colour might make the survey more appealing. Another early study examined the ink and paper colour combinations that provide the greatest legibility (Paterson and Tinker, 1940). The authors suggest three different ink colours for white paper: black, grass green, and lustre blue. The only other recommended combination is black ink on yellow paper.

Some investigators have examined the effect of using a green paper compared to white paper. Two studies (Gullahorn and Gullahorn, 1963; Pressley and Tullar, 1977) reported no significant differences in response rates, while another (Pucel, Nelson and Wheeler, 1971) reported a 9.1 percent difference. A meta-analysis of these studies calculated an average aggregate increase of 2.0 percent when using a green questionnaire (Fox, Crask, and Kim, 1988).

**Sponsorship**

There have been several studies to determine if the sponsor of a survey might affect response rate (Houstan and Nevin, 1977; Jones and Lang, 1980; Jones and Linda, 1978; Peterson, 1975). The overwhelming majority of these studies have clearly demonstrated that university sponsorship is the most effective. A meta-analysis of these studies revealed an aggregate increase in response rate of 8.9 percent (Fox, Crask and Kim, 1988). Dillman (1978) suggested that this may be due to the past benefits that the respondent has received from the university. Another possibility is that a business sponsor implies advertising or sales to potential respondents.

**Cover Letters**

The cover letter is an essential part of the survey. To a large degree, the cover letter will affect whether or not the respondent completes the questionnaire. It is important to maintain a friendly tone and keep it as short as possible (Goode and Hatt, 1962). The importance of the cover letter should not be underestimated. It provides an opportunity to persuade the respondent to complete the survey. If the questionnaire can be completed in less than fifteen minutes, the response rate can be increased by mentioning this in the cover letter (Nixon, 1954).

The cover letter should address seven items (Walonick, 1993):

1. Briefly describe why the study is being done.

2. Identify the sponsors (if needed).

3. Mention the incentive (if included).

4. Mention inclusion of a stamped, self-addressed return envelope (if included).

5. Encourage prompt response without using deadlines.

6. Describe the confidentiality/anonymity policy.

7. Give the name and phone number of someone they can call.

***Pretest the questionnaire***

Test the questionnaire on a few people and ask them to respond to each question, plus what they think each question is asking, report any difficulties in understanding any questions or response formats, and express other reactions to the items.

**References**

<http://www.statpac.com/research-papers/questionnaires.htm>