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## Questionnaire Design and Construction

### Questionnaires

Surveys take many different forms and styles. On one extreme there are Face-to-face Interviews when the researcher asks questions individually of each subject or respondent who answers verbally. At the other extreme is the Electronic Questionnaire when all the instructions and questions are on-line and the respondent replies on-line. In the middle we have Telephone Interviews, Group administered and Postal Questionnaires. There are other types but these are the major ones.

### Why people respond

Surveys are a bit like conversations. There is give and take between the participants. However, in the case of surveys, the researcher asks questions and the other person responds to that question. While this is turn-taking it is always one-way and only one side benefits.

In a survey we are asking questions that will help us, the researchers, but will probably not have any beneficial effect for the people participating and we certainly hope that there will be no detrimental effects. It's difficult to offer a good reason why people should help you with a survey. At one extreme you can plead on their human generosity - on the other offer them money or some other reward. In the end researchers are reliant on the basic good will of most people to participate in research. So it is imperative that researchers are clear about what they want from respondents and who the respondents need to be.

Typically, surveys are aimed at a particular group of people; shoppers, teachers; mothers. Each Survey has a purpose. Some people will co-operate with a survey if they think the reasons for it are worthy of support.

### On-line questionnaires

In **On-line Questionnaires** the respondent receives all communications in writing - the instructions, the questionnaire and typically instructions for submitting the replies. The researcher never has direct contact with the respondent. This may make the questionnaire easier for people to respond to because they don't know or see the researcher. However, it can also make it harder for people to be motivated to answer questions for a stranger if they cannot see what's in it for them. You will never receive 100% response rate in fact you may not receive many back at all. If a researcher receives 30-35% of questionnaires back from an unsolicited survey that's considered good. There are ways to increase response rates. But obviously only sending the questionnaire to people who are in a position to respond appropriately is a good beginning. The obvious first step is to ensure that your questionnaire is interesting, topical and one that participants will want to complete. A key element of good response rate is to have selected a most appropriate sample. You would not, for example, send a questionnaire on Staff Induction to people who had not attended. You would not send that same questionnaire out unless you gave assurances of confidentiality and anonymity.

A questionnaire must look professional and look good to the eye. This is, after all, the first, and at times only, impression the respondent receives.

Explanations of what the research is about and why you have asked this particular person to complete it may help people to want to respond (this suggests they have expert knowledge on the issues). Your instructions should be clear and concise. This makes it obvious to the respondent what is involved.

Making a questionnaire easy to complete; by only requiring ticking or filling in blanks shows it will not require much effort. Questions that ask the respondent to delve deep in their memories or to explain why they do or believe certain things often make respondents feel uncomfortable in having to justify themselves. Often questions requiring long responses are left blank.



Finally, with postal questionnaires, we send follow-up reminders to people to return questionnaires. In the initial cover letter it is important to emphasize the importance of the research and their participation. Obviously, you will want questionnaires completed and returned as quickly as possible. However, giving a cut-off date will lose you some respondents. For whatever reason (being away, losing, whatever) some people need more time. So we often ask people to send them back in the next few weeks and after 3-4 weeks send a reminder letter and another copy of the questionnaire (in case they lost the first). If necessary a third reminder a few weeks later may bring in a few more.

For the next topics I want to talk about the answer in every case is IT DEPENDS.

People are human and they make mistakes. So not all questions are answered appropriately. Sometimes respondents skip a question they really do not want to respond to; or because they did not see it; or they put two answers instead of one; sometimes they put an answer in completely the wrong place. You will never get appropriate answers to every question from every respondent – this you just have to accept.

Questions must be understandable; it must be clear what the respondent is supposed to do; the respondent must be able to respond; the respondent must be willing to respond.

### **What type of questions can be asked?**

Any question can be asked assuming it is put in a proper frame of reference and the respondents have the knowledge and are willing to respond. Filter questions can distinguish those individuals who cannot respond appropriately to a question. Using funnelling techniques so that general questions are asked first followed by more focused questions can help produce answers to sensitive issues.

### **Interview distortion**

A key element of survey research is that it is important that method used to obtain questionnaire information is carried out in the same way with every respondent. If you have 2 or more interviewers or questionnaire administrators they may consciously or unconsciously change the way they give instructions or ask questions. If I ask questions of 10-12 year olds about smoking, the way I ask the questions may determine how and if they respond honestly. Someone else may ask the same questions in a different way and get different answers. This is what we must avoid doing. It is very difficult for researchers (who are just people after all) not to show their own biases on some issues. So it is possible to have a distorted survey due to different people following procedures in different ways.

### **Question wording**

The biggest difficulty in preparing survey questions is deciding on the actual words to put into the questions. A question that seems straightforward to one person may appear very complicated to another. The problems with wording become more complicated when you are asking questions about a topic that requires the use of jargon; or if the respondents are either children or adults with minimal literacy skills.

The goal of writing questions is to have the question mean the same thing to every respondent. Generally, it is suggested that use the simplest words possible. However, simple words are often the most vague or multi-meaning words. So Be Careful.

Writing questions involves doing them for:

- 1) A Particular Population
- 2) A Particular Purpose
- 3) For placement next to other questions in the questionnaire



Vague questions produce vague answers – Did you like the Induction event?

Precise questions can't be answered easily - How far, in miles, do you travel to work? Questions that show a bias produce biased responses – If you could vote tomorrow would you vote for Prime Minister Blair or Mr Duncan-Smith? (By using the term Prime Minister implies a bias towards the current incumbent.)

Sometimes we have to ask questions about sensitive topics - Rather than just asking the question bluntly, ask a series of questions that gently lead the respondent up to the critical question.

Questions that require the respondent to do a lot of thinking or working out are less likely to be answered than questions that require minimal effort. It's often a good idea to avoid asking for specific details on class enrolments or amount of time spent on various activities. Rather, whenever possible, offer a range of responses to cover most contingencies 25-30 30-35 >35. Provide information that may help respondents make correct responses.

It is easy to ask questions that actually ask two questions at once. This causes the problem of not knowing which question is being responded to. Are you happiest if you can sleep late on the weekend? Is asking 2 questions do you like to sleep late on the weekends and are you happiest when you can sleep late on the weekend.

Questions phrased positively or neutrally are easier to answer than questions with a negative in them. This is especially with double negative questions.

- Be sure answer choices are mutually exclusive
- Do questions assume more knowledge than respondents likely to have?
- Do questions assume certain behaviours that respondents are likely to have?
- Be sure questions are technically accurate.
- Be sure that appropriate time references are given. Ate yesterday rather than last week.
- Be sure to phrase questions so that answers can be compared with existing information if that is one goal of your study.
- Be sure you include enough information in a question so that it can be responded - i.e., not too cryptic.

## Types of questions

Researchers must be very clear in their own minds what information they require so that appropriate questions are asked in appropriate ways. The researcher must be very clear in his/her own mind what information are going to be provided by each question and how this information relates to the original purpose of the survey or research question. Every question asked should have a clear purpose and a clear path for how the information obtained will be used.

**Attitude questions** try to assess how respondents feel about something. Respondents are asked to be reflective about the thing. Questions generally require respondents to show whether they have positive or negative feelings about the attitude object; do they favour or oppose prefer or not prefer agree or disagree. To be unbiased response options should be on a continuum from very positive to very negative. The use of a neutral is optional.

*Beliefs* are different from attitudes. Beliefs reflect what an individual thinks society as a whole believes. Belief questions often assess what a respondent thinks is true or false. There isn't any implied goodness or badness about the assessment; just whether the respondent thinks something exists or not. These questions are designed to elicit people's perceptions of past present or future reality.



**Behaviour questions** are technically questions about respondents' beliefs of their behaviour. The distinction between beliefs and behaviour is to elicit information on respondents' personal experiences rather than their cognitive knowledge of something.

**Attribute questions** elicit information on personal or demographic material. Age, sex, occupation, etc. The usual purpose of including this type of question is to explore how other kinds of information (attitudes, beliefs and behaviour) vary for people with differing attributes.

### **How long can a questionnaire be?**

Length of questionnaires vary according to the topic and scope of the research. We used to think that a questionnaire that took only 20 minutes to complete stood a better chance of being completed than one that took an hour. Research suggests that long questionnaires will be completed if the respondent is involved with or interested in the topics under discussion. So a long questionnaire is appropriate when you have an interested set of respondents on a topic that is of central concern to them. Of course, what you may think should be of central importance to them may not be the same as what they think of as centrally important. If you ask teachers about children's physical development and abilities and focus on the recreation facilities at their school this may be important to you but less important than the provision of textbooks and laboratory equipment. So the researcher must be sensitive to the population under investigation.

### **Summary**

Designing good questionnaires involves creativity and precision. It takes a good deal of time to develop a draft of a good questionnaire, ensuring that each question has a specific purpose which relates back to the research aims and questions. It is also imperative to know how to analyze the results received, be it through statistical analyses or more in-depth qualitative techniques. The researcher must have a clear idea of how the data will be dealt with.

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