Use of Questionnaire in Research

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Questionnaire

- A questionnaire is a research instrument consisting of a series of questions for the purpose of gathering information from respondents
- Questionnaires can be an effective means of measuring the behavior, attitudes, preferences, opinions and, intentions of relatively large numbers of subjects more cheaply and quickly than other methods.

Closed questions

- Structure the answer by only allowing responses which fit into pre-decided categories.
- Nominal data: restricted to as few as two options, i.e., dichotomous (e.g., 'yes' or 'no), or polytomous with several options.
- Ordinal data (which can be ranked). This often involves using a continuous rating scale to measure the strength of attitudes or emotions. For example, strongly agree / agree / neutral / disagree / strongly disagree / unable to answer.

Closed ended questions

- **Dichotomous Questions**. This type of questions gives two options to respondents – yes or no, to choose from. It is the easiest form of questionnaire for the respondent in terms of responding it.
- **Multiple choice question**s. Respondents are offered a set of answers they have to choose from. The downsize of questionnaire with multiple choice questions is that, if there are too many answers to choose from, it makes the questionnaire, confusing and boring, and discourages the respondent to answer the questionnaire.

Types of Questions

- **Scaling Questions**. Also referred to as ranking questions, they present an option for respondents to rank the available answers to the questions on the scale of given range of values (for example from 1 to 10).

Types of questions

- **Open questions** differ from other types of questions used in questionnaires in a way that it may produce unexpected results, which can make the research more original and valuable. However, it may be difficult to analyze the results of the findings and is generally used in qualitative research where the direction of the analysis is determined by the respondent.

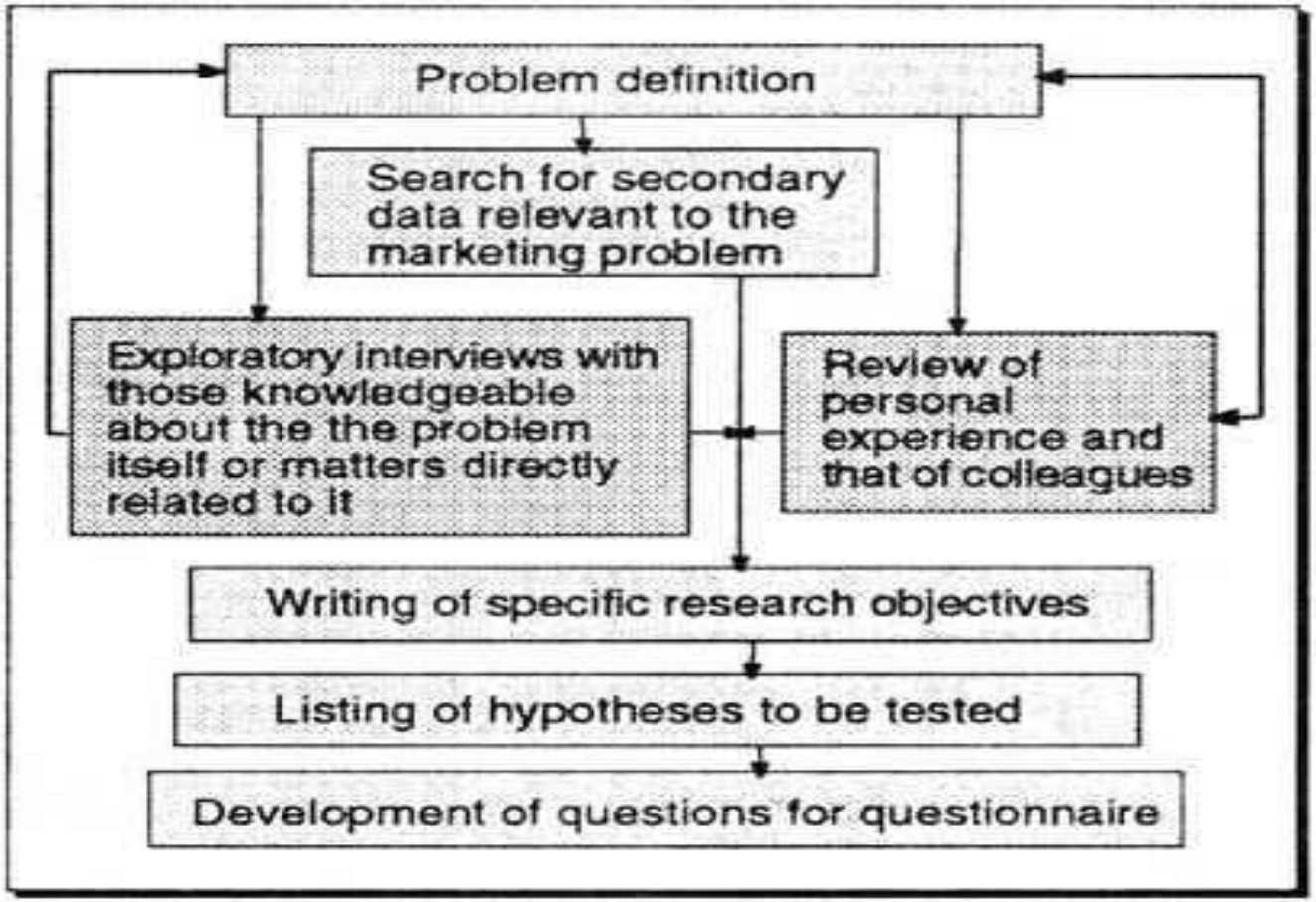
Qualities of a good questionnaire

- Directly achieves the research objectives – requires adequate preparation to probe all possible angles of the research question
- Provides complete and accurate information - respondents should fully understand the questions and not likely refuse to answer, lie or conceal their attitudes. A good questionnaire is organised and worded to encourage respondents to provide accurate, unbiased and complete information.

Qualities of a good questionnaire

- So designed as to make sound analysis and interpretation possible - make it easy for respondents to give the necessary information and for the interviewer to record the answer, and it should be arranged to enable sound analysis and interpretation
- Brief and to the point and be so arranged that the respondent(s) remain interested throughout the interview

Questionnaire development



Questionnaire and research objectives

- The design of a questionnaire will depend on whether the researcher wishes
  - to collect exploratory information (i.e. qualitative information for the purposes of better understanding or the generation of hypotheses on a subject)
  - or quantitative information (to test specific hypotheses that have previously been generated).

Exploratory questionnaire

- **Used when** the data to be collected is qualitative or is not to be statistically evaluated and no formal questionnaire is needed.
- (e.g. Prepare a brief guide, listing ten major open-ended questions, with appropriate probes/prompts listed under each to interview the female head of the household to find out how decisions are made within the family when purchasing foodstuffs.)
- A formal questionnaire may restrict the discussion and prevent a full exploration of the woman's views and processes.

Formal standardised questionnaires

Used to test and quantify hypotheses and the data is to be analysed statistically. Such questionnaires are generally characterised by:

- prescribed wording and order of questions, to ensure that each respondent receives the same stimuli
- prescribed definitions or explanations for each question, to ensure interviewers handle questions consistently and can answer respondents' requests for clarification

Formal standardised questionnaires

A formal standardised questionnaire is generally characterised by:

- prescribed response format, to enable rapid completion of the questionnaire during the interviewing process

Steps in questionnaire development

1. Decide the information required.
2. Define the target respondents.
3. Choose the method(s) of reaching your target respondents.
4. Decide on question content.
5. Develop the question wording.
6. Put questions into a meaningful order and format.
7. Check the length of the questionnaire.
8. Pre-test the questionnaire.
9. Develop the final survey form.

Steps in questionnaire development

1. Decide the information required

- Decide 'what are the things one needs to know from the respondent in order to meet the survey's objectives
- Additional help can be obtained from secondary data (literature review), previous rapid rural appraisals and exploratory research.
- Further, a small number of preliminary informal interviews with target respondents may help clarify ideas about what information is required.

Steps in questionnaire development

2. Define the target respondents - define the population that will be the research respondents.

- Decide the inclusion/ exclusion criteria.
- Draw up a sampling frame. Take into account factors such as the age, education, etc. of the target respondents (demographic information of respondents)

Steps in questionnaire development

3. Choose the method(s) of reaching your target respondents.

- · personal interviews
  · group or focus interviews
  · mailed questionnaires
  · telephone interviews.
- Each has its advantages and disadvantages. A general rule is that the more sensitive or personal the information, the more personal the form of data collection should be.

Steps in questionnaire development

4. Decide on question content.
Researchers must always be prepared to ask, "Is this question really needed?" The temptation to include questions without critically evaluating their contribution towards the achievement of the research objectives, as they are specified in the research proposal, is surprisingly strong. No question should be included unless the data it gives rise to is directly of use in testing one or more of the hypotheses established during the research design.

Steps in questionnaire development

5. Develop the question wording.

- Advantages of open-ended questions:
- Allow the respondent to answer in his own words, with no influence by any specific alternatives suggested by the interviewer.
- Reveal the issues which are most important to the respondent, and this may reveal findings which were not originally anticipated when the survey was initiated.
- Respondents can 'qualify' their answers or emphasise the strength of their opinions.

Steps in questionnaire development

5. Develop the question wording.

Some problems in open-ended questions:

- Respondents may find it difficult to 'articulate' their responses to properly and fully explain their attitudes or motivations.
- Respondents may not give a full answer, simply because they may forget to mention important points and others need prompting or reminding of the types of answer they could give.

Steps in questionnaire development

5. Develop the question wording.

Some problems in open-ended questions:

- Data collected is in the form of verbatim comments that may be hard to code and reduce to manageable categories..
- Respondents will tend to answer open questions in different 'dimensions'.
- An open response-option is a form of question which is both open-ended and includes specific response-options as well.

Steps in questionnaire development

6. Put questions into a meaningful order and format.

- **Question flow:** one leads easily and naturally to the next and should be grouped together by topic.
- **Question variety:** It usually improves response to vary the tasks from time to time. (e.g. Questions involving showing cards/pictures to respondents can help vary the pace and increase interest.)

Steps in questionnaire development

7. Check the length of the questionnaire.

In general it is best for a questionnaire to be as short as possible. A long questionnaire leads to a long interview and this is open to the dangers of boredom on the part of the respondent (and poorly considered, hurried answers), interruptions by third parties and greater costs in terms of interviewing time and resources. In a rural situation an interview should not last longer then 30-45 minutes.

Steps in questionnaire development

8. Pre-test the questionnaire to determine:

- if the wording of questions will achieve the desired results and are placed in the best order
- if the questions are understood by all classes of respondent and whether additional or specifying questions are needed or have to be eliminated
- if the instructions to interviewers are adequate
- Usually a small number of representative respondents are selected for the pre-test.

Steps in questionnaire development

9. Develop the final survey form.

If the questionnaire has been subjected to a thorough pilot test, the final form of the questions and questionnaire will have evolved into its final form. All that remains to be done is the mechanical process of laying out and setting up the questionnaire in its final form. This will involve grouping and sequencing questions into an appropriate order, numbering questions, and inserting interviewer instructions.

How to write good survey questions

1. Write questions that are simple and to the point.
2. Use words with clear meanings
3. Limit the number of ranking options
4. In a multiple choice question, cover all options without overlapping.
5. Avoid double-barreled questions.
6. Offer an “out” for questions that don’t apply.
7. Avoid offering too few or too many options.
8. Make recall easy.

Scientific soundness: Assess validity of questionnaires

- **VALIDITY** is an indication of how sound the **research** is; applies to both the design and the methods of **research**.
- **Validity** in data collection **means** that the findings truly represent the phenomenon being measured. **Valid** claims are solid claims.
- **Validity** refers to accuracy or correctness of the findings.

Reliability

- consistency with which the **research** will produce the same results
- **Reliability** is directly related to the **validity** of the measure. **Validity** is **more important** than **reliability**.
- There are two **types of reliability:**
  Internal **reliability** assesses the consistency of results across items within a test.
  External **reliability** refers to the extent to which a measure varies from one use to another.

Ethical Issues

- Ensure that the information provided by the respondent is kept confidential, e.g., name, address, etc.
- Questionnaires are good for researching sensitive topics as respondents will be more honest when they cannot be identified and it will reduce the likelihood of any psychological harm, such as embarrassment.
- Participants must provide informed consent prior to completing the questionnaire, and must be aware that they have the right to withdraw their information at any time during the survey/ study.

References

- https://www.simplypsychology.org/saul-mcleod.html