



# **Data collection method (Designing questionnaire)**

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# Outline

- What is questionnaire
- Preparation steps for designing a questionnaire
- Formulating questions.
- Sequencing of the questions.
- Formatting of the questionnaire.
- Methods of administrating the questionnaire.



# What is questionnaire

- Questionnaire is an objective mean to gather information from the respondents to answer the research questions.
- It is a very convenient way of collecting information from a large number of people within a period of time.
- The design of the questionnaire is of utmost importance to ensure accurate data is collected.



# Formulating questions

- It is crucial to know how to ask the questions in written and spoken form.
- The way you ask the questions determines the answers.
- The question, as a rule, has to be broken up into different parts and made so specific that all respondents focus on the same thing.



# Closed-end questions

- They are more common and form the basis for most standardized measures.
- Provide options to the respondents and require them to choose one or more items from the list.
- It is preferred if the range of answers are well known and the options are limited.



# Closed-end questions: Advantages

- Quick.
- Easy to answer.
- Easier for analysis.
- The list of possible answers often helps to clarify the meaning of the questions.



# Closed-end questions: Disadvantages

- Leading questions.
- The potential responses listed by the researcher may not include an answer that is most appropriate for a particular respondent.



# Types of closed format

- **Choice of categories**

For example, “What is your marital status?”

☐ Single, ☐ Married, ☐ Divorced, ☐ Widowed

- **Likert style scale**

For example, “Statistics is an interesting subject”

Strongly disagree, Disagree, Cannot decide, Agree and Strongly agree.





# Types of closed format

- **Differential scales**

For example, “How would you rate the presentation?”

Extremely interesting 1 2 3 4 5 6 7 8 9 10 Extremely dull

- It may also be diagrammatic:

Extremely interesting

Extremely dull



# Types of closed format ( Cont.)

- **Checklists:**

For example, “Circle the clinical specialties you are particularly interested in”

General medicine

General surgery

Ophthalmology

Paediatrics

Obstetrics and gynecology

Orthopaedics

Accident and emergency

General practice



# Open-ended questions

- Useful when it is important to hear what respondents have to say in their own words.
- Allow the respondent to express their opinions freely and they are not restricted by the options.
- It is preferred if the answer options are multiple and unknown.



## Open-ended questions( Cont.)

- Can form the bases for more structured items in a later phase.
- They require qualitative method to code and analyze the responses, which take more time and subjective judgment than coding closed ended questions.

e.g.: what habits do you believe increase a person's chance of having a heart attack?



# Sequencing the questions

- The sequence of questions must be logical to the respondents and flow smoothly from one question to the next.
- At the beginning of the interview a limited number of questions concerning 'background variables' (e.g., age, education, marital status) may be asked.
- Questions tend to flow from:
  - General to specific.
  - Impersonal to personal.
  - Easy to difficult.



# Formatting the questionnaire

## **Cover page :**

- Code No.
- Title of the study
- A brief introduction.
- Explaining the purpose of the study.
- Requesting the informant's consent.
  - Assuring confidentiality of the data obtained.
  - Put instructions.



## Formatting the questionnaire(Cont.)

- Put the questions and answer choices in attractive way.
- All aspects of wording should be consistent .
- Questions in similar area should be grouped together.
- Use large font size for old people and fort hose with visual problems.
- Use simple words, clear and short questions.
- Put heading for major subjects.



## Formatting the questionnaire(Cont.)

- If the questionnaire is long, you may use subheadings for groups of questions.
- Neat format with plenty of space is more attractive& easy to use.
- For closed ended questions this will prevent overlap during circling or ticking a response.
- For open ended questions, more space is needed for people with large handwriting.
- Boxes for pre-categorized answers are placed in a consistent manner.





# Translation of the questionnaire

- ❑ If interviews will be conducted in one or more local languages, the questionnaire should be translated in order to standardize the way questions will be asked.



## Pilot test of the questionnaire

- Pilot test is a crucial step in the design of questionnaire before data collection begins.
- It will help to detect flaws in the questionnaire in terms of content, grammar and format.



# Methods of administering questionnaire

- Directly to the person: It allows the researcher to explain the instructions.
- Electronic questionnaires: Immediate response, data collected easily and enter directly into database. Only clean data are received.
- Mailed questionnaires: Less likely to be returned



# What is a good questionnaire?

A good questionnaire should be valid, reliable, clear, interesting and succinct.

- Valid: A valid questionnaire should ask what it intends to ask, i.e. the questions should be phrased in such a way that the respondent understands the objective of the question.
- Reliable: A reliable questionnaire should yield the same answer if the same question is posed to the respondent repeatedly in a short span of time.



# What is a good questionnaire?(Cont.)

- Clear: All questions should clear
- Interesting: An interesting questionnaire is more likely to be completed by the respondent and hence yields a better response rate.
- Succinct ( Concise): A succinct questionnaire asks questions that aim to answer only the research objectives. Any questions beyond the scope of the research should be excluded.



# Selecting an existing questionnaire

- Before developing a new measure, identify existing instruments that measure the construct of interest.
- It is possible to use already available questionnaire for your study.
- It is more cost effective than starting from scratch to develop and validate an instrument.



# References

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