

# Designing a questionnaire

# Questionnaire:

- Questionnaire is an objective mean to gather information from the respondents to answer 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 so that the results are interpretable .

# Preparation steps for designing a questionnaire:

- Define your research objectives.
- Identify factors and their interactions with the problem.
- What information need to be collected to meet the objectives of the study.
- What questions will be needed to collect the required information.

# 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.

# Formulating questions( Cont.)

- Check whether each question measures one thing at a time.
- Use simple, everyday language.
- Avoid words with double , complex or vaguely defined meanings .
- Ask sensitive questions in a socially acceptable way.(Indirect question)

A useful acronym to use when designing your question is FINER  
(Hulley et al. 2013)

### **Feasible?**

- **Can it be researched? Can it be managed in the time you have available?**

### **Interesting?**

- **Will it challenge you and give you the chance to learn something new?**

### **Novel?**

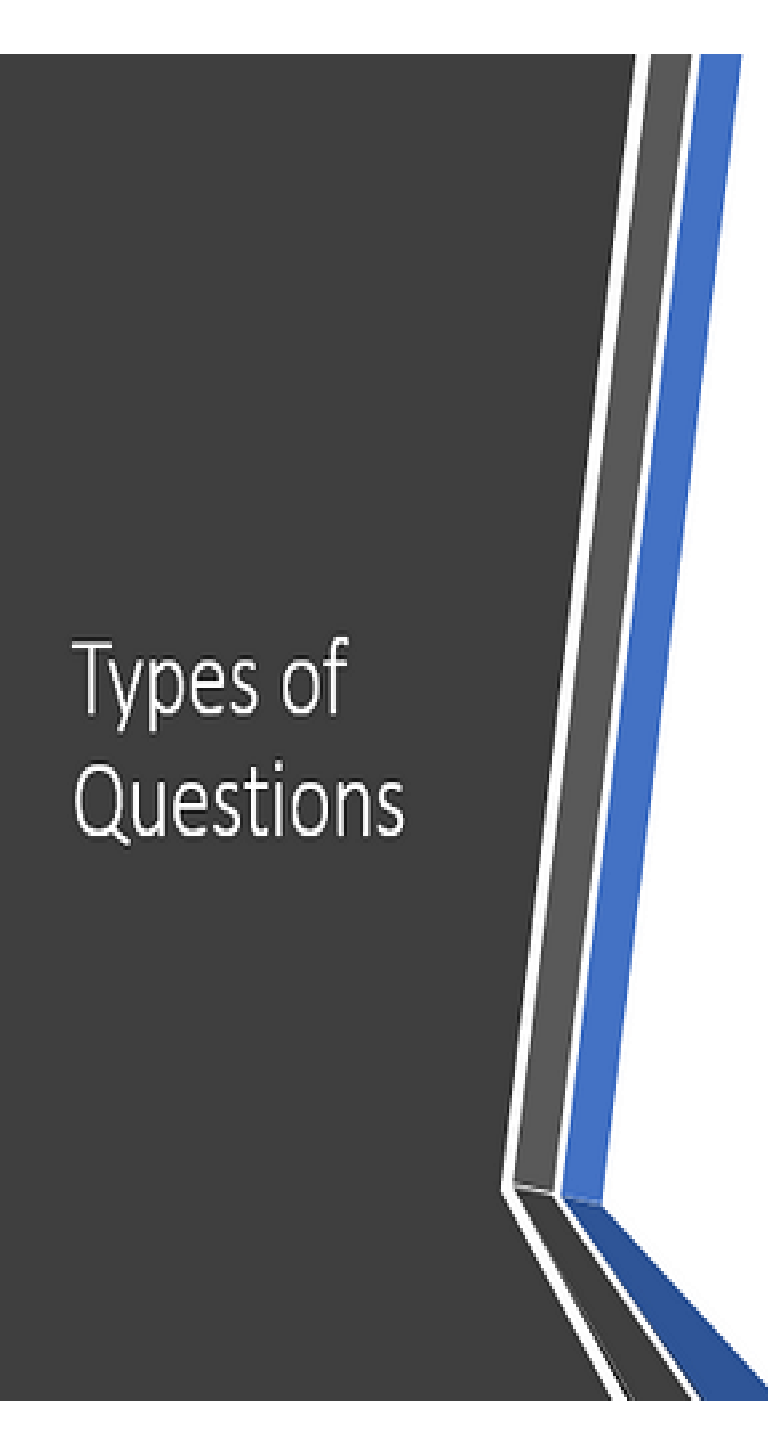
- **Will it result in original and key findings?**

### **Ethical?**

- **Is it safe and ethical to research?**

### **Relevant?**

- **Is it relevant and does it meet the learning requirements of the subject?**



Types of  
Questions

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Open Question

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Closed Question

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Leading Question

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Probing Question

# 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.

# 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.

# DIFFERENCE BETWEEN OPEN-ENDED AND CLOSED-ENDED QUESTIONS

## OPEN-ENDED QUESTION

1. Allows free form answers
2. Questions include words like what, how, where, when, etc.
3. Can be used to collect qualitative data.
4. It takes longer to gather information from respondents because they need to elaborate and give their reasons why.
5. Observations, jobs to be done interviews, focus groups are common data collection methods.

## CLOSE-ENDED QUESTION

- Limited answer options
- Common types of close-ended questions are dichotomous question that are answered with YES/NO and multiple choice questions.
- Can be used to collect quantitative data.
- Completed in a shorter time frame because the answers are straight and direct to the point.
- Surveys, polls, questionnaires are common data collection methods.

## Closed question

Why don't you eat ice cream at Fictionals Ice Cream Parlour?  
*(Choose at least one answer.)*

- I don't like the flavours
- It's too expensive
- The service is bad
- I don't like the ice cream
- It's too far from my house
- I don't know

## Open-ended question

Why don't you eat ice cream at Fictionals Ice Cream Parlour?

I am lactose intolerant so I can't eat most ice creams, and it's really hard to find a store that offers good lactose-free ice cream. I've never heard of Fictionals but if I knew that they offered some, I would definitely try them out because I love ice cream!

## Open

How do you get to work?

Tell me about your relationship with your boss.

What did you manage to accomplish on the trip?

What happened at the meeting?

## Closed

Do you get to work by driving, busing, or walking?

Do you get on well with your boss?

Was your trip successful?

Did you have a good meeting?

# 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., which medical stage, Integrated or traditional method) may be asked.
- Questions tend to flow from:
  - General to specific.
  - Impersonal to personal.
  - Easy to difficult.

# Sequencing the questions( Cont.)

- Start with an interesting but non-controversial question that is directly related to the subject of the study.
- Start with neutral questions then proceed to sensitive ones.
- Pose more sensitive questions as late as possible in the interview(e.g., questions pertaining to student support like money, Did you receive Psychological counselling, or stigma experienced in case of stigmatizing diseases like poliomyelitis or TB).

# Formatting the questionnaire

- Put the questions and answer choices in attractive way.
- Explaining the purpose of the study .
- Questions in similar area should be grouped together.
- Requesting the informant's consent.
- Use simple words, clear and short questions.
- Put heading for major subjects.



# 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.
- After having it translated you should have it retranslated into the original language by a different person ( Translate-back-translate).

# 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.

# Assessing the quality of the questionnaire

1. How do we know that we are indeed measuring what we want to measure?  
(Validity).
2. Can we be sure that if we repeated the measurement we will get the same result?  
(Reliability).

# Validity of the questionnaire

Validity is defined as the extent to which the instrument measures what it suppose to measure. For example, a valid pain assessment tool measures pain intensity rather than anxiety.

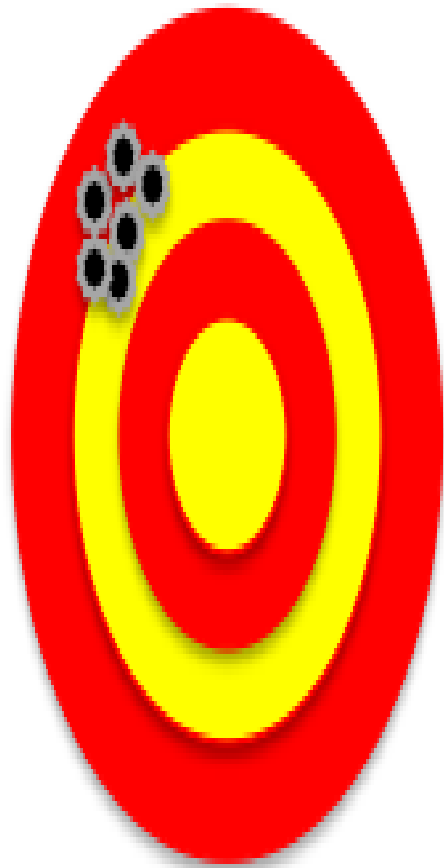
Validity is ensured by the accuracy of a result, i.e. how close the result is to the true value.

# Reliability

- Reliability is defined as the extent to which a questionnaire produces the same results on repeated trials.
- Consistent results generate reliability.
- A doctor measures the body temperature of the same patient using the same thermometer under consistent environmental and physical conditions. The thermometer displays a different body temperature each time. Therefore, **the instrument has low reliability**

# Target A

Poor Validity,  
Good Reliability



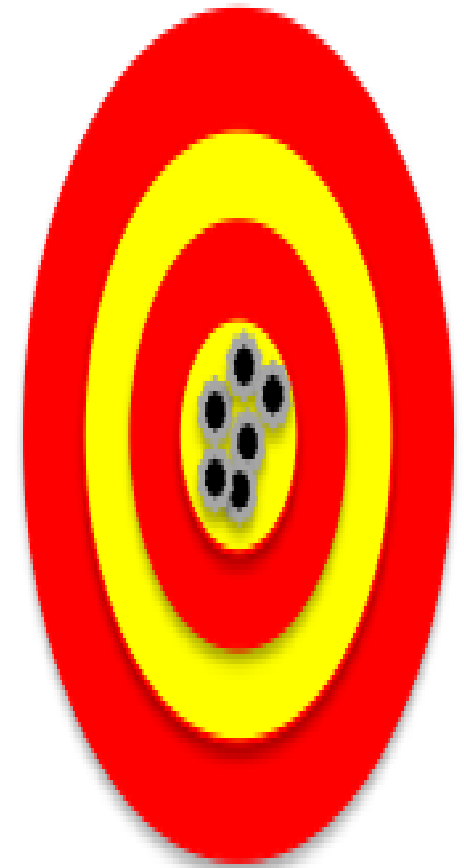
# Target B

Poor Validity  
Poor Reliability



# Target C

Good Validity,  
Good Reliability



# What is a good questionnaire?

- Clear: All questions should be clear
- Interesting: An interesting questionnaire is more likely to be completed by the respondent.
- Concise: A concise questionnaire contain only questions needed to answer the research objectives. Any questions beyond the scope of the research should be excluded.

**Thank You**