GB6013

RESEARCH INSTRUMENT

DR. FARIZA KHALID

INSTRUMENT

- Instrument – a tool used to collect data
- Research instruments are simply devices for obtaining information relevant to the research project

INSTRUMENTS

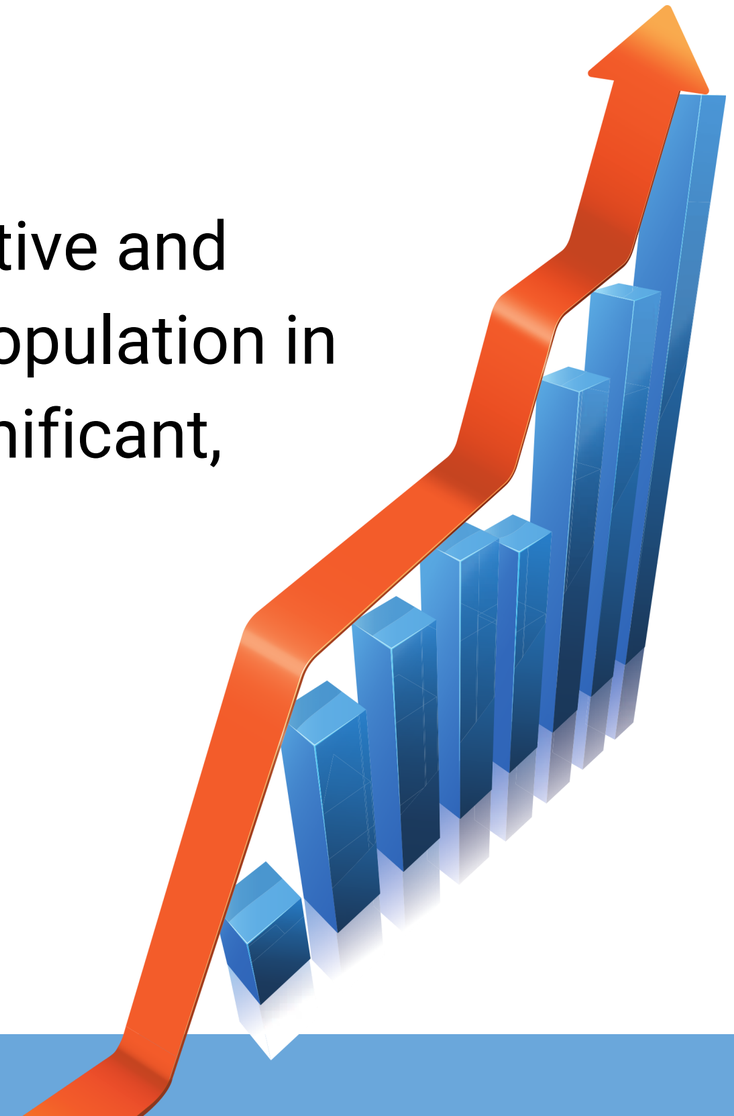
- Questionnaire
- One to one Interview
- Focus Group Interview
- Observation
- Content analysis

QUESTIONNAIRE

- Accurate and systematic data collection is critical to conducting scientific research.
- Data collection allows us to collect information that we want to collect about our study objects

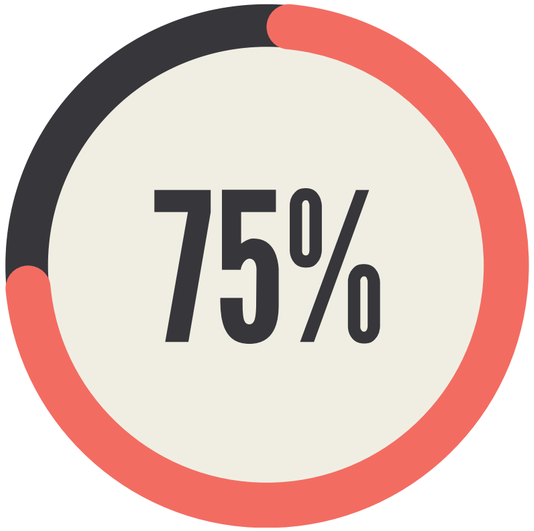
QUESTIONNAIRE

- Questionnaires allow collection of both subjective and objective data in a large sample of the study population in order to obtain results that are statistically significant, specially when resources are limited



QUESTIONNAIRE

- The questionnaires can measure both qualitative and quantitative data, but is it more appropriate for quantitative data collection



STEPS IN DESIGNING AND ADMINISTERING QUESTIONNAIRE

1. Defining the Objectives of the Study
2. Define the target respondents and methods to reach them.
3. Questionnaire Design
4. Pilot Testing
5. Questionnaire Administration
6. Results Interpretation

DEFINING THE OBJECTIVES OF THE STUDY

- A questionnaire should allow us to collect the most complete and accurate data in a logical flow.
- A well-designed questionnaire should meet the research goal and objectives and minimize unanswered questions

DEFINE THE TARGET RESPONDENTS AND METHODS TO REACH THEM

- Clearly define the target, study populations
- Methods: personal contact, group of focus interview, mail /Internet-based questionnaires, telephone interview

DEVELOP THE QUESTIONNAIRE

- Must be based on the research question
- Each question should contribute to testing one or more hypothesis/ research question
- Questions could be:
  - close-ended
  - open-ended

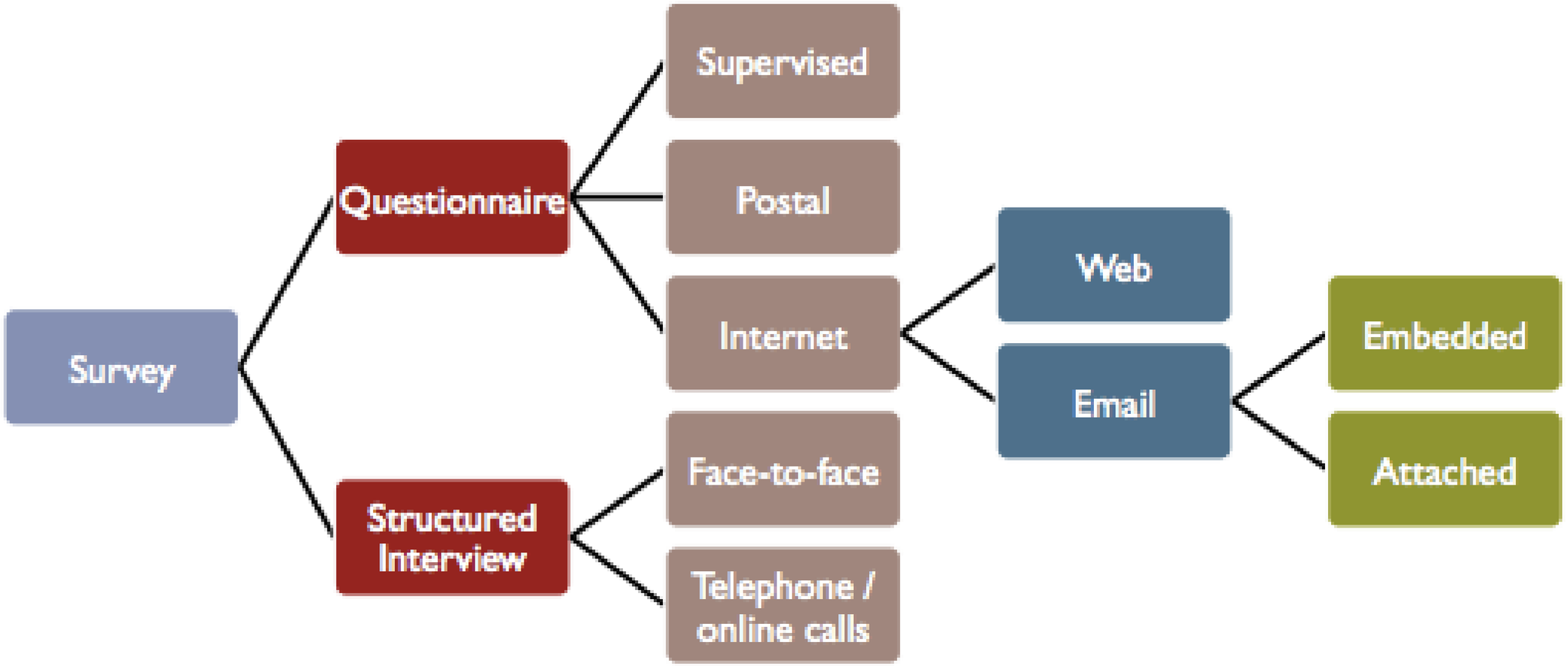
QUESTIONNAIRE ITEMS

- Clarity (question has the same meaning for all respondents)
- Phrasing (short and simple sentences, only one piece of information at a time, avoid negatives if possible, ask precise questions, in line with respondent level of knowledge…)
- Sensitive question: avoid questions that could b embarrassing to respondents.
- Hypothetical Questions should be avoided if possible.

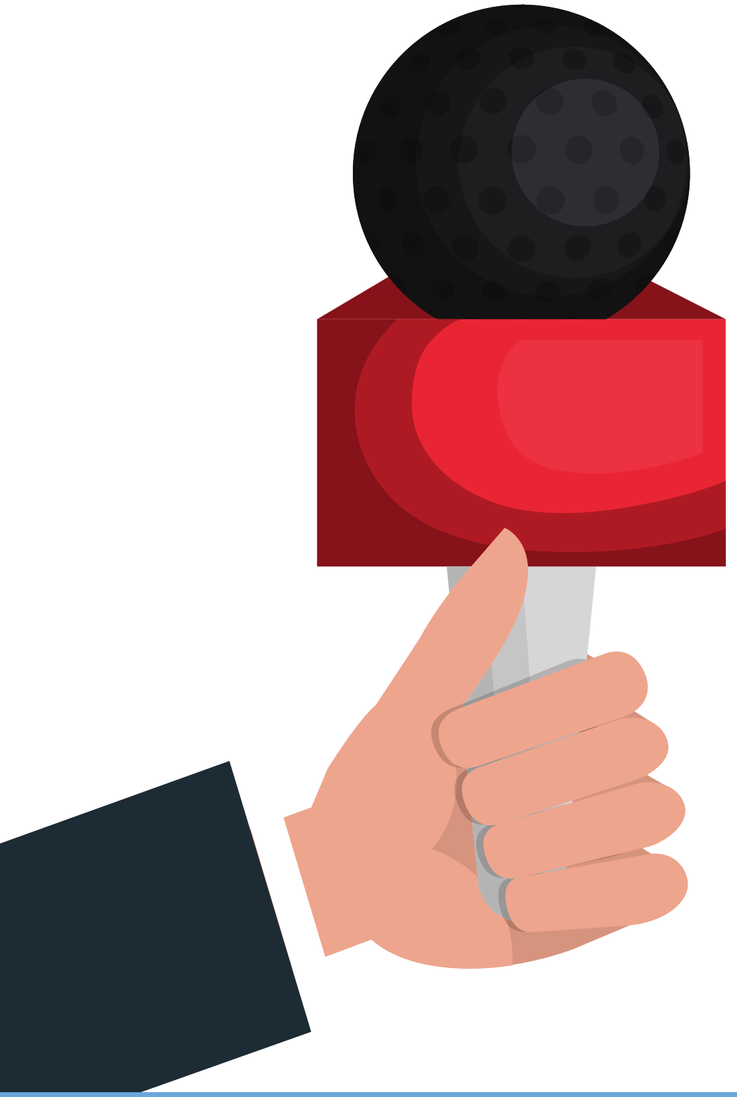
PILOT TESTING

- The major challenge in questionnaire design is to make it clear to all respondents.
- In-order to identify and solve the confusing points, we need to pre-test the questionnaire.
- During the pilot trial: the questionnaire participants should be randomly selected from the study population.

ADMINISTERING QUESTIONNAIRE



INTERVIEW



- Interviews consist of collecting data by asking questions.
- Data can be collected by listening to individuals, recording, filming their responses, or a combination of methods.

TYPES OF INTERVIEW

- Structured interview
- Semi-structured interview
- In-depth interview, and
- Focused group discussion

STRUCTURED INTERVIEW

- In structured interviews the questions as well as their order is already scheduled.
- Your additional intervention consists of giving more explanation to clarify your question (if needed), and to ask your respondent to provide more explanation if the answer they provide is vague (probing)

SEMI-STRUCTURED INTERVIEW

- Include a number of planned questions, but the interviewer has more freedom to modify the wording and order of questions.

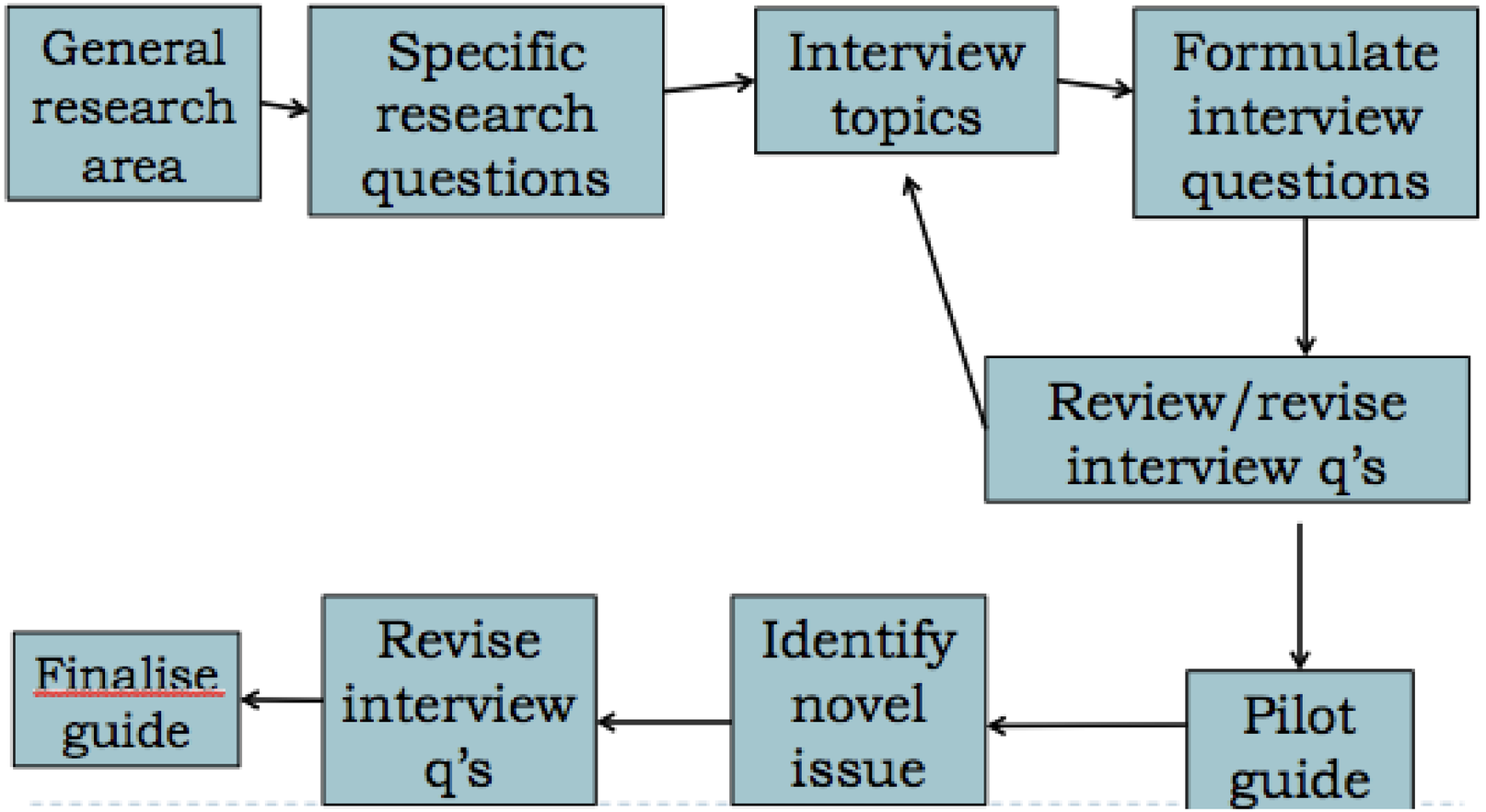
IN-DEPTH INTERVIEW

- In-depth interview is less formal and the least structured, in which the wording and questions are not predetermined. This type of interview is more appropriate to collect complex information with a higher proportion of opinion-based information.

FOCUS GROUP INTERVIEW

- Focus group is a structured discussion with the purpose of stimulating conversation around a specific topic.
- Focus group discussion is led by a facilitator who poses questions and the participants give their thoughts and opinions.
- Focus group discussion gives us the possibility to cross check one individual’s opinion with other opinions gathered.

FORMULATING INTERVIEW GUIDES



KINDS OF QUESTIONS

Introducing questions:

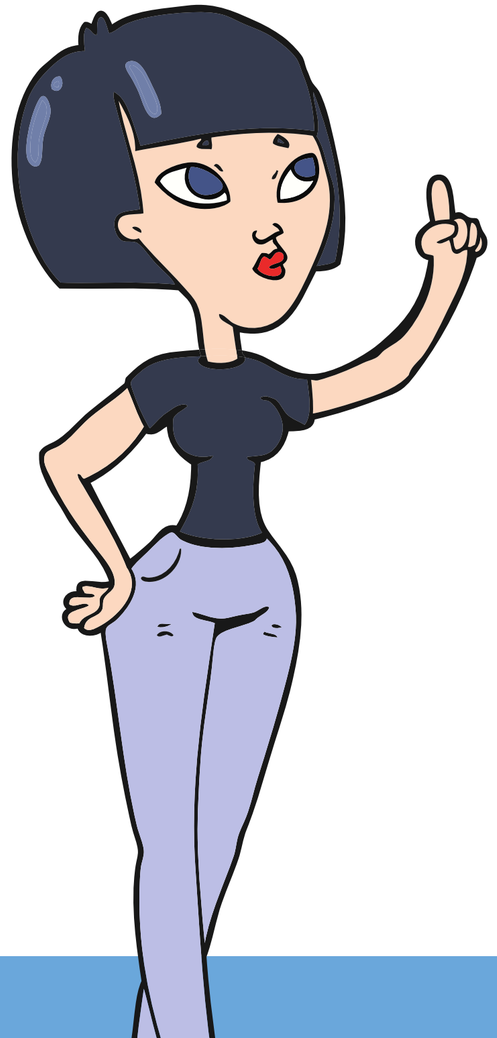
- ‘have you ever ..’
- Please tell me about
- when your interest in Y began?’

KINDS OF QUESTIONS

Follow up questions:

- ‘what do you mean by …?’

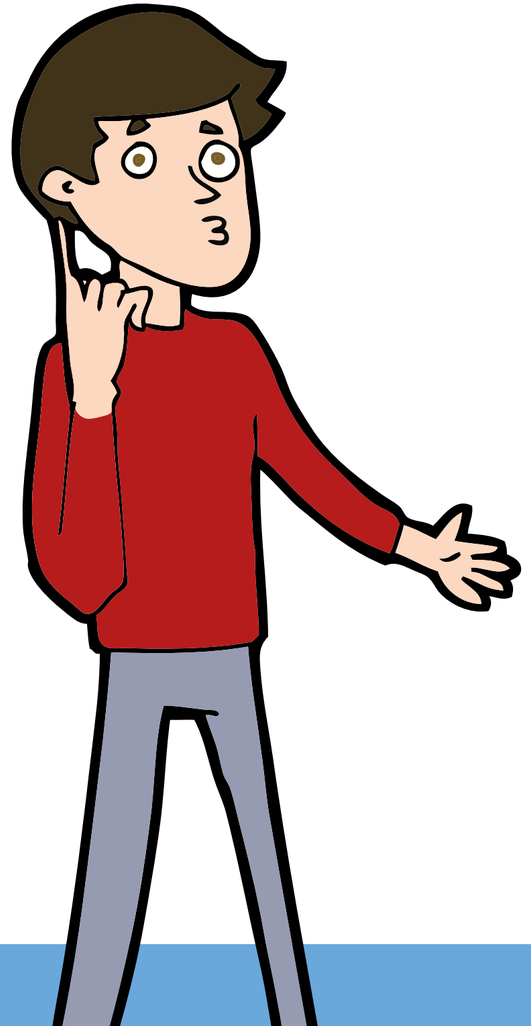
KINDS OF QUESTIONS



Probing questions:

- ‘could you say some more about that?’
- In what ways do you find X interesting?’

KINDS OF QUESTIONS



Indirect question:

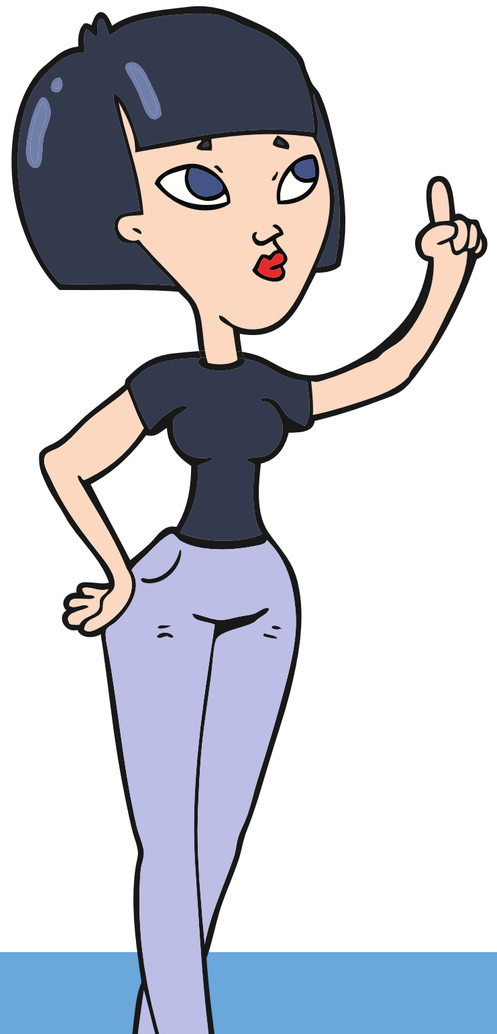
- 'is that the way you feel too?’

KINDS OF QUESTIONS

Structuring questions:

- 'I would now like to move on to different topic.’

KINDS OF QUESTIONS



Interpreting questions:

- ‘Do you mean that your leadership role has had to change to a more directive one?’

QUESTIONS ORDER

- Start with questions that directly relate to the topic of research (this removes the possibility that the respondent will be wondering why he/she is being asked apparently irrelevant questions)
- Put potentially embarrassing questions left till later
- Group questions into sections – to allow better flow than skipping from one topic to another
- Skip the question that has been asked by the respondent (if s/he provided the answers before you asked)

PROBING

- help the respondent to understand the question – further information is needed
- Seek more answers if the respondent did not provide sufficient answer:
- ‘could you say a little more about that?’
- ‘ada apa lagi yang encik hendak katakan?’
- Agaknya kenapa saudara berkata begitu?
- ‘aha ..?’

PROMPTING

- When the interviewer suggests a possible answer to a questions to the respondent
- E.g. when there is along list of possible answer – hand the list to the respondent and let him decide

LEAVING THE INTERVIEW

- Say thanks!
- Appreciate them for giving up their time
- Tokens

SOURCES OF ERROR

- A poorly worded question
- The way the question is asked by the interviewer
- Misunderstanding on the part if the interviewee
- Memory problems on the part of interviewee
- The way the information is recorded by the interviewer
- The way the information is processed e.g. coding part


Savage Chickens
by Doug Savage
IF YOU WERE A TREE, WHAT KIND OF TREE WOULD YOU BE?
I'D BE THE TREE TURNED INTO PAPER FOR PRINTING "THE DUMMIES' GUIDE TO INTERVIEWING"
©2007 BY DOUG SAVAGE

OBSERVATION

- Observation is a method of data collection in which researchers observe within a specific research field.

OBSERVATION

- Observation is normally associated with an ethnographic methodology (more later) but can be used as part of other research designs

KEY POINTS TO CONSIDER

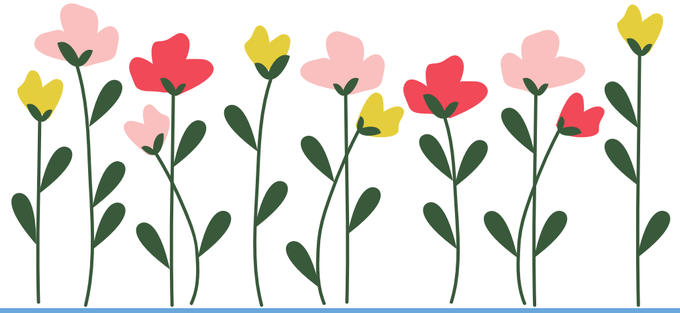
- Is it compatible with your research aims, questions and paradigmatic approach?
- How will it add value to your research in addition to or in place of other methods?
- Are there any ethical, access or other issues that might make observations difficult?

KEY POINTS TO CONSIDER

- How will you collect observational data? Structured template, unstructured, semi-structured?
- How will you organise your field notes, personal notes etc?
- Will other data methods be used? If so, how will they add value? If you are seeking to triangulate, how will this be compatible with epistemology etc?

REMINDER

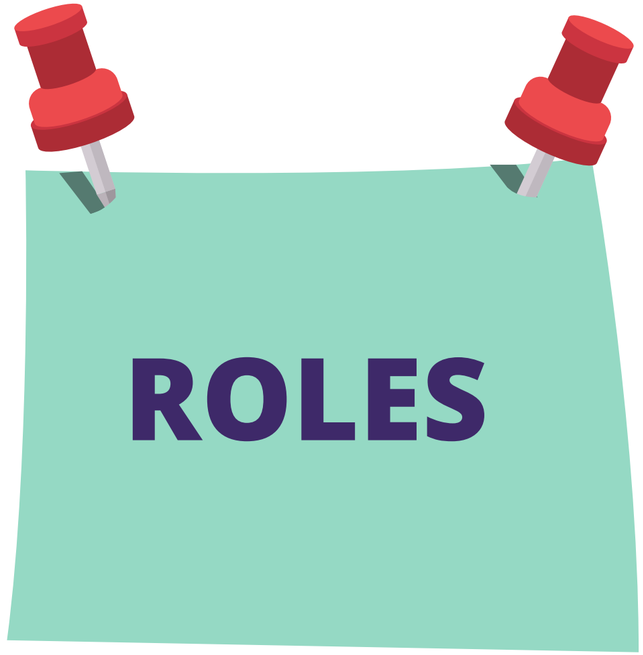
- Observations have to be tied to the research question(s), which should act as a guide
- Piloting data collection is an important way of determining what is important to include or what could possibly be ignored
- Allow data to emerge through the process – field notes towards the end of data collection might look very different from field notes at the start



ETHICS IN DATA COLLECTION

- Informed consent of all involved
- Guarantee of anonymity
- Giving back to the research site

ROLES OF A RESEARCHER



- We commit ourselves to long-term relationships
- Trust is a very important issue
- We will see and hear things of a sensitive nature
- We may become a “sounding board” for others

REFERENCE

Bryman, A. (2004). Social research method. 2nd Edition. Oxford University Press Inc.