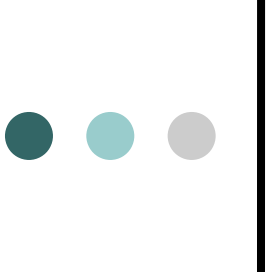
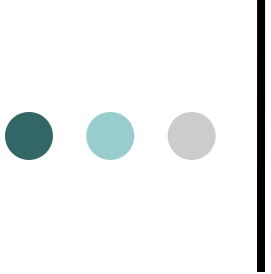


Data collection instruments & Questionnaire Design



Data collection instruments

- When a research instrument contains only **questions and statements** to be answered by respondents, it is called a **questionnaire.**

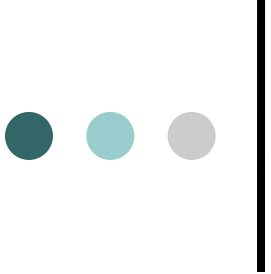


Types of questions

- Depending on how questions are asked and recorded we can distinguish two major possibilities:

1. Open-ended questions: (allowing for completely open as well as partially categorized answers).

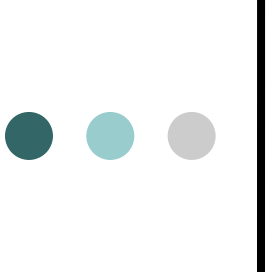
- It **permit free responses** which should be recorded in the ***respondents' own words***.



Open-ended questions

...

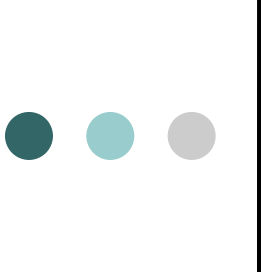
- Such questions are useful for obtaining in-depth information on:
 - **Facts** with which the researcher is not very familiar,
 - **Opinions, attitudes and suggestions of informants, or**
 - **Sensitive issues.**



Types of questions ...

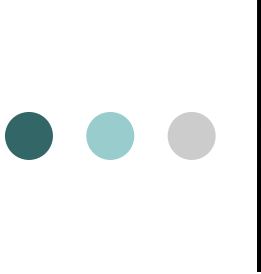
Examples;

1. 'What is your opinion on the services provided in the ANC?' (Explain why.)
2. 'What do you think are the reasons some adolescents in this area start using drugs?'
3. 'What would you do if you noticed that your daughter (school girl) had a relationship with a teacher?'



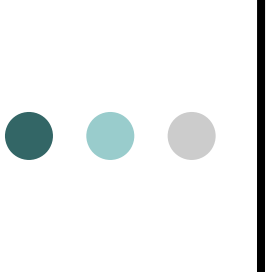
Advantage of open-ended questions...

- ✓ Allow you to probe more deeply into issues of interest being raised.
- ✓ Information provided in the respondents' own words might be useful
- ✓ Providing valuable new insights on the problem.
- ✓ Permit unlimited number of answers



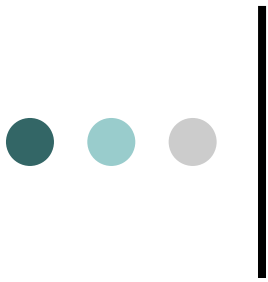
Risks of completely open-ended questions...

- A big risk is incomplete recording of all relevant issues covered in the discussion.
- Analysis is time-consuming and requires experience; otherwise important data may be lost.
- Skilled interviewers are needed to get the discussion started and focused on relevant issues and to record all information collected.



2. Closed ended questions:

- Have a **list of possible options/answers** from which the ***respondents must choose.***
- **Closed questions** are most commonly used for **background variables** such as age, marital status or education, although in the case of age and education you may also take the exact values and categorize them during data analysis.



Closed ended ...e.g. 1

1. 'Women who have induced abortion should be severely punished.'

1. Strongly agree

☐

2. Agree

☐

3. Not sure/no opinion

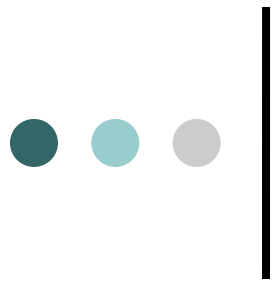
☐

4. Disagree

☐

5. Strongly disagree

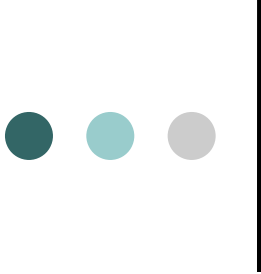
☐



Closed ended ...e.g. 2

2. Did you eat any of the following foods yesterday?' (Circle yes if at least one

• Peas, beans, lentils	Yes	No
• Fish or meat	Yes	No
• Eggs	Yes	No
• Milk or cheese	Yes	No
• Insects	Yes	No



Closed ended ...e.g. 3

3. In which of the following settings do you currently provide services to your patients? (**Please check all those that apply.**)

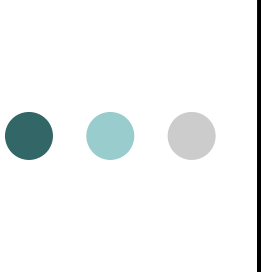
☐ Hospital Inpatient

☐ Hospital Outpatient

☐ Community /Migrant Health Center

☐ Free clinic

☐ Other [Multiple-response]

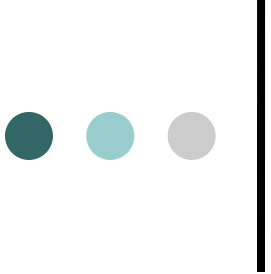


Advantages of closed ended questions

- ✓ **It saves time**
- ✓ **Comparing responses** of different groups, or of the same group over time, becomes easier.
- ✓ Answers easier to analyze on computer
- ✓ Response choices make question clearer

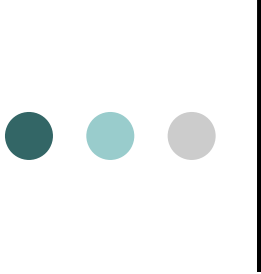
Risks of closed ended questions:

- In case of illiterate respondents, bias will be introduced
- Many **choices** can be confusing
- Can't tell if respondent misinterpreted the question
- Fine distinctions may be lost



Questionnaire Design

- Designing a questionnaire always takes several drafts.
- In the first draft we should concentrate on the content.
- In the second, we should look critically at the formulation and sequencing of the questions. Then we should scrutinize the format of the questionnaire.
- Finally, we should do a test-run to check whether the questionnaire gives us the information we required & whether both the respondents & we



Steps in designing questionnaire

Step 1: Content

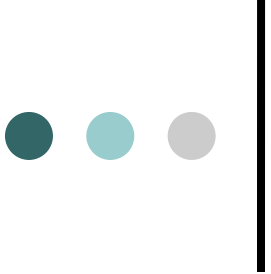
Step 2: Formulating questions

Step 3: Sequencing the questions

Step 4: Formatting the questionnaire

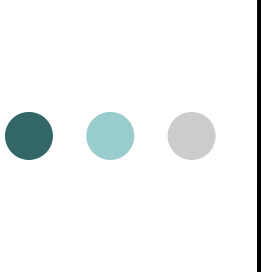
Step 5: Translation

Step 6: pre-test



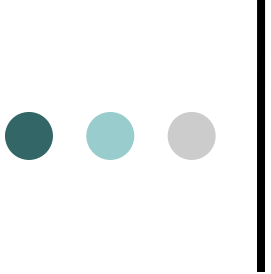
Step 1: Content:

- ❑ Take your **objectives and variables** as a starting point
- ❑ Decide what questions will be needed to measure or to define your variables and reach your objectives.



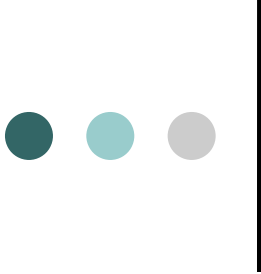
Step 2: Formulating questions:

- ❑ Formulate one or more questions that will provide the information needed for each variable.
 - ✓ Check whether each question measures one thing at a time.
- For example, the question, “Do you think the treatment you received from the doctor was costly and ineffective?” would better be divided into two questions because cost and ineffective are two different things.



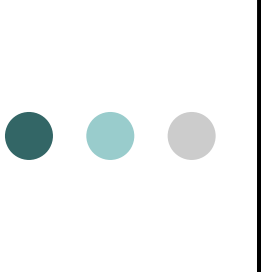
Formulating questions...

- **Take care that questions are specific and precise enough that different respondents do not interpret them differently.**
- **Ask sensitive questions in a socially acceptable way and at last.**



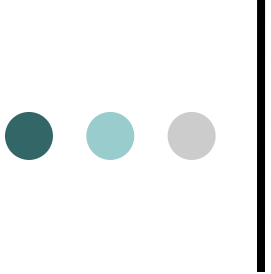
Avoid leading questions.

- If a question is leading, it **suggests a certain answer.**
- For example, the question, "Do you agree that the district health team should visit each health center monthly?" hardly leaves room for "no" or for other options.
- Better would be: "Do you think that district health teams should visit each health center? If yes, how often?"



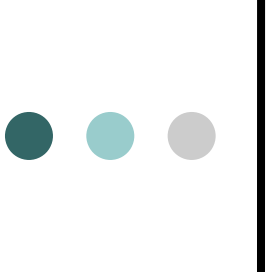
Step 3: Sequencing the questions:

- Design your interview schedule or questionnaire to be “***informant friendly***”
- The **sequence** of questions must be **logical** for the respondent and allow as much as possible for a “**natural**” discussion.



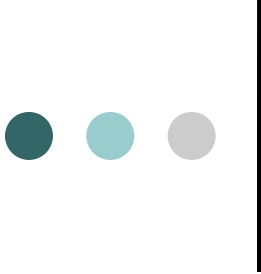
Cont ...

- At the **beginning** of the interview, keep questions concerning “**background variables**” (e.g., age, religion, education, marital status, or occupation) to a minimum.
- If possible, pose most or all of these questions later in the interview. (Respondents may be reluctant to provide “personal” information early in an interview).



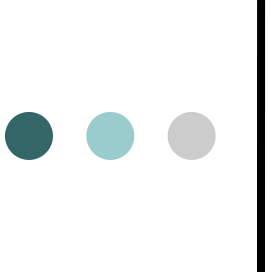
Cont ...

- **Start with** an **interesting** but ***non-controversial*** question (preferably **open**) that is directly related to the subject of the study. This type of beginning should help to raise the informants' interest.
- Pose **more sensitive questions as late as possible** in the interview (e.g., questions pertaining to ***income, sexual behavior, or diseases with stigma*** attached to them, etc.
- **Use simple everyday language.**



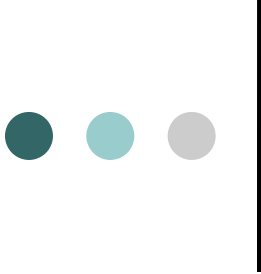
Step 4: Formatting the questionnaire:

- ❑ When you finalize your questionnaire, be sure that:
 - A separate, **introductory page** is attached to each questionnaire
 - explaining the purpose of the study
 - requesting the informant's consent to be interviewed
 - assuring confidentiality of the data obtained.
- Each questionnaire has a heading and space to insert the number, date and location of the interview
- You may add the name of the interviewer, to facilitate quality control.



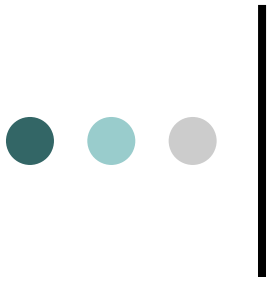
Step 5: Translation

- If interview will be conducted in one or more local languages, the questionnaire has to be translated to standardize the way questions will be asked.
- After having it translated you should have it retranslated into the original language.
- You can then compare the two versions for differences and make a decision concerning the final phrasing of difficult concepts.



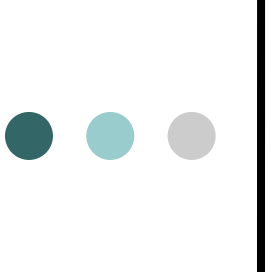
Generally in questionnaire design remember to:

- Use familiar and appropriate language
- Avoid abbreviations, double negatives, etc.
- Avoid two elements to be collected through one question
- Pre-code the responses to facilitate data processing
- Avoid embarrassing and painful questions
- Watch out for ambiguous wording
- Avoid language that suggests a response



Cont'd

- Start with simpler questions
- Ask the same question to all respondents
- Provide other, or don't know options where appropriate
- Provide the unit of measurement for continuous variables
- For open ended questions, provide sufficient space for the response



Cont'd

- Arrange questions in logical sequence
- Group questions by topic, and place a few sentences of transition between topics
- Provide complete training for interviewers
- **Pretest** the questionnaire on **20-50 respondents (5% of the sample size)** in actual field situation
- Check all filled questionnaire at field level
- Include **“thank you”** after the last question