Research Methodology
Lecture 3
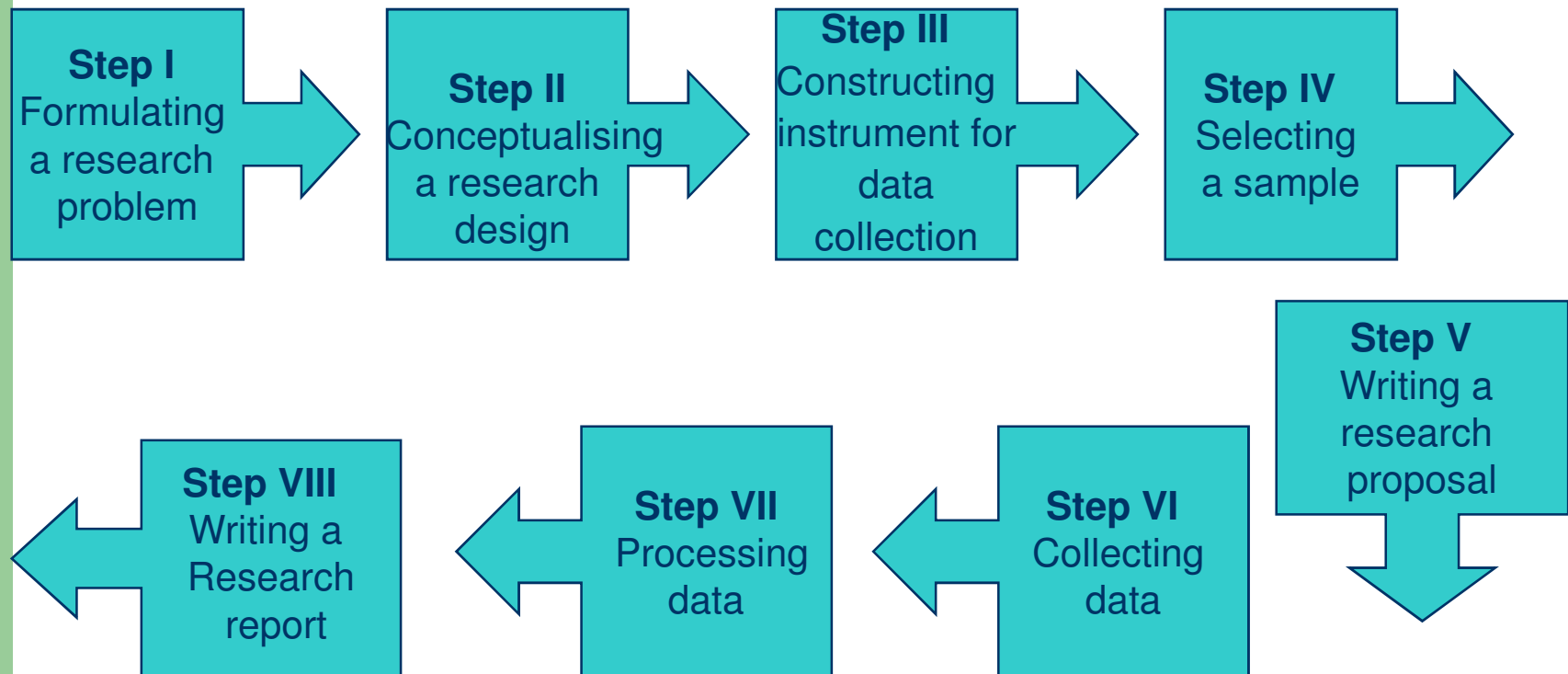
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Lecture outline

- Cont. Research process: an 8-step model

  – **Step III Constructing an instrument for data collection**

    - **Interviews**
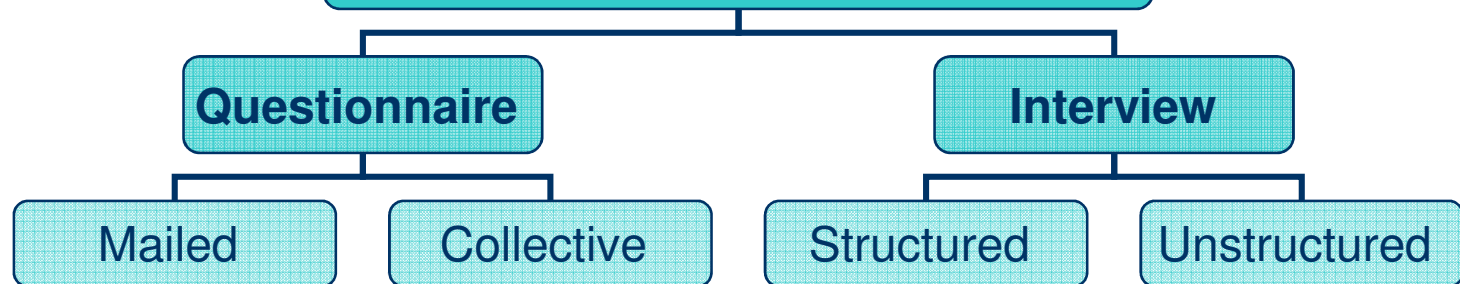
    - **Questionnaires**

    - **Questions**

    - **Attitude scales**

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The research process: an 8-step model

Step I
Formulating a research problem

Step II
Conceptualising a research design

Step III
Constructing instrument for data collection

Step IV
Selecting a sample

Step V
Writing a research proposal

Step VI
Collecting data

Step VII
Processing data

Step VIII
Writing a Research report

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Methods of data collection

- **Questionnaire**
  - Mailed
  - Collective
- **Interview**
  - Structured
  - Unstructured

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Collecting data using primary sources

1. Interview

- Unstructured interview

- Structured interview

  - Uniform information

  - Few interview skills

2. Questionnaire

- Mailed questionnaire

- Collective administration

Advantages and disadvantages of interviews

Advantages

- More appropriate for complex situations

- Useful for collecting in-depth information

- Information can be supplemented

- Questions can be explained

- Wider applications

Disadvantages

- Time consuming and expensive

- Quality of data depends on the quality of interaction / interviewer

- The interviewer may be biased

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Advantages and disadvantages of questionnaires

Advantages

- Less expensive
- More anonymity

Disadvantages

- Limited application
- Low response rate
- Self-selecting bias
- Lack of opportunity to clarify issues
- Spontaneous responses are not allowed for
- The response to a question may be influenced by the response to other questions
- It is possible to consult others

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Forms of questions

- Open ended

- Closed ended

Open-ended questions

Advantages

- In-depth information

- Gives respondents an opportunity to express themselves

Disadvantages

- Analysis difficult

- Interviewer bias

- Some people cannot express themselves

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Closed-ended questions

Advantages

- Easy to analyse

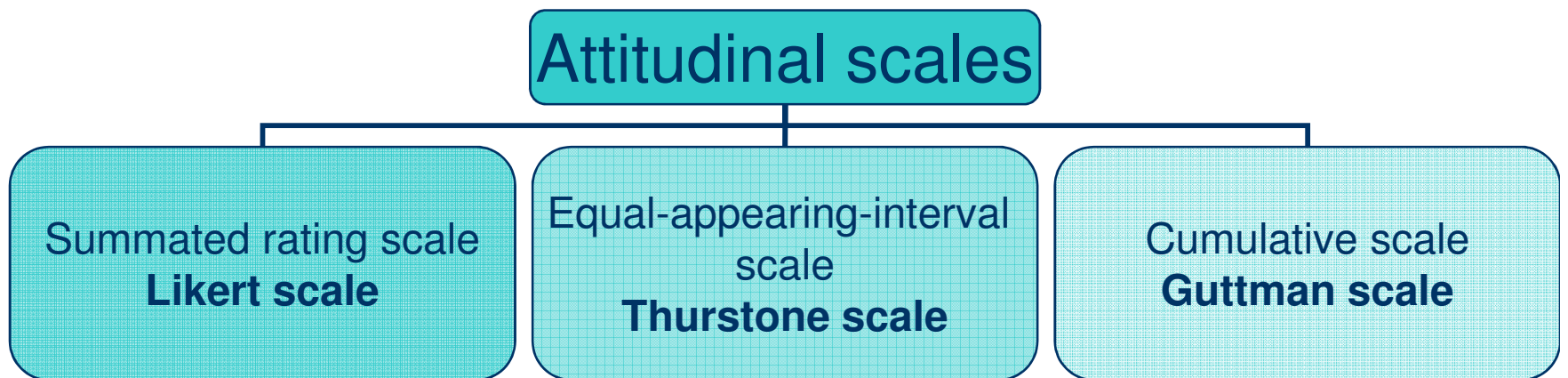- 'Ready made' categories helps to ensure that the needed information is obtained

Disadvantages

- Information lacks depth and variety

- May condition respondents thinking

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Considerations in formulating questions

- Cover letter

- Always give clear instructions

- Always use simple everyday language

- Do not use ambiguous questions

- Do not ask double-barrelled questions

- Do not ask leading questions

- Do not ask questions that are based on presumptions

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Attitudinal scales

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                        ┌─────────────────────┐
                        │  Attitudinal scales │
                        └──────────┬──────────┘
        ┌──────────────────────────┼──────────────────────────┐
┌───────────────────┐  ┌─────────────────────────┐  ┌────────────────────┐
│ Summated rating   │  │ Equal-appearing-interval│  │ Cumulative scale   │
│ scale             │  │ scale                   │  │ Guttman scale      │
│ Likert scale      │  │ Thurstone scale         │  │                    │
└───────────────────┘  └─────────────────────────┘  └────────────────────┘
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Likert scale:
Five point categorical scale

	The Lecturer:	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	Knows the subject well	☐	☐	☐	☐	☐
2	Is unenthusiastic about teaching	☐	☐	☐	☐	☐
3	Shows concern for students	☐	☐	☐	☐	☐
4	Has poor communication skills	☐	☐	☐	☐	☐
5	Knows how to teach	☐	☐	☐	☐	☐

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Likert scale:
Seven point numerical scale

	The Lecturer:	
1	Knows the subject well	7____6____5____4____3____2____1
2	Is enthusiastic about teaching	7____6____5____4____3____2____1
3	Shows concern for students	7____6____5____4____3____2____1
4	Communicates well	7____6____5____4____3____2____1
5	Knows how to teach	7____6____5____4____3____2____1

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Calculating an attitudinal score

	The Lecturer:	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	Knows the subject well	☑	☐	☐	☐	☐
2	Is unenthusiastic about teaching	☐	☐	☐	☐	☑
3	Shows concern for students	☐	☐	☑	☐	☐
4	Has poor communication skills	☐	☐	☐	☐	☑
5	Knows how to teach	☐	☑	☐	☐	☐

Statement no.   1   2   3   4   5
Respondent 1 = 5 + 5 + 3 + 5 + 4 = 22

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Calculating an attitudinal score

	The Lecturer:	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	Knows the subject well	☐	☐	☐	☐	☑
2	Is unenthusiastic about teaching	☐	☑	☐	☐	☐
3	Shows concern for students	☐	☐	☐	☐	☑
4	Has poor communication skills	☐	☑	☐	☐	☐
5	Knows how to teach	☐	☐	☐	☑	☐

Statement no.   1   2   3   4   5
Respondent 2 = 1+ 2 + 1 + 2 + 2 = 8

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Summary

The questionnaire or Interview is your TOOL

Good tool = Good results

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