



Master of Information Technology Program
Faculty of Computer Science - University of Indonesia

SURVEY RESEARCH

RESEARCH METHODOLOGY CLASS

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DEFINITION OF SURVEY RESEARCH

Survey:

- A method of primary data collection based on communication with a representative sample of individuals (called respondents).

Key Concepts in the Definition

1. Primary data
2. Communication
3. Sample
4. Representative





DEFINITION OF SURVEY RESEARCH

- Survey research is one of the most important areas of measurement in applied social research.
- The broad area of survey research encompasses any measurement procedures that involve asking questions of respondents.
- A "survey" can be anything from a short paper-and-pencil feedback form to an intensive one-on-one in-depth interview.



THE LOGIC OF SAMPLING AND MEASUREMENT





ADVANTAGES AND DISADVANTAGES OF SURVEYS

Advantages:

Speed – Faster data collection than other methods

Cost - Relatively inexpensive data collection

Accuracy – Survey data can be very accurate if sampling is properly done

Efficiency – Measured as a ration of accuracy to cost, surveys are generally very efficient data collection methods

Disadvantages:

Survey error – Potentially large sources of error in surveys

Communication Problems - Each of the different communication survey methods has its own unique problems.



CLASSIFYING SURVEY RESEARCH METHODS

1. By method of communication.
 - a) Personal Interviews
 - b) Telephone interviews
 - c) Self-administered interviews
2. By degree of structure and disguise.
 - a) Structured disguised
 - b) Structured undisguised
 - c) Unstructured disguised
 - d) Unstructured undisguised
3. By time frame (Temporal classification).
 - a) Cross-sectional surveys
 - b) Longitudinal surveys





CLASSIFYING SURVEYS BY DEGREE OF STRUCTURE AND DISGUISE

	Structured	Unstructured
Undisguised (Direct)	Example: Typical descriptive survey with straightforward, structured questions.	Example: survey with open-ended questions to discover “new” answers.
Disguised (Indirect)	Example: survey interview to measure ERP product brand A’s image versus competitive brand’s or brand recall (unaided recall).	Example: projection techniques used mostly for exploratory research.



TEMPORAL CLASSIFICATION OF SURVEY RESEARCH

1. ***Cross-sectional studies:*** studies in which various segments of a population are sampled and data collected at a single point in time.

2. ***Longitudinal studies:*** studies in which data are collected at different points in time using:
 - a) successive (different) samples in a tracking study or cohort study.
 - b) the same sample in a panel study (user panels, developer panels, etc).





SELECTING THE SURVEY METHOD

- **Population issue**
 - Can the population be enumerated?
 - Is the population literate?
 - Are there language issues?
 - Will the population cooperate?
 - What are the geographic restrictions
- **Sampling issues**
 - What data is available?
 - Can respondents be found?
 - Who is the respondent?
 - Can all members of population be sampled?
 - Are response rates likely to be a problem?



SELECTING THE SURVEY METHOD

- **Questioning issues**
 - What types of questions can be asked?
 - How complex will the questions be?
 - Will screening questions be needed?
 - Can question sequence be controlled?
 - Will long response scales be used?
 - Will long response scales be used?
- **Content and Bias issues**
 - What are your constructs?





GENERAL PROBLEM OF MEASUREMENT

RELIABILITY & VALIDITY

Reliability

- Refers to the *replicability* of the measurement procedure to yield consistent results

Validity

- Refers to the extent to which the measurement procedure actually measures the concept that it is intended to measure



CLOSED-ENDED QUESTIONS

Advantages

- Quick & easy for respondents
- Less articulate are not at a disadvantage
- Response choices can clarify alternatives
- Fewer irrelevant answers
- Easy to code and analyse

Disadvantages

- Responses suggest ideas (e.g., No opinion/knowledge still give opinion)
- Frustrates respondents if categories are not exhaustive
- Misinterpretation goes unnoticed
- Complex issues forced into simple categories
- Recency effects



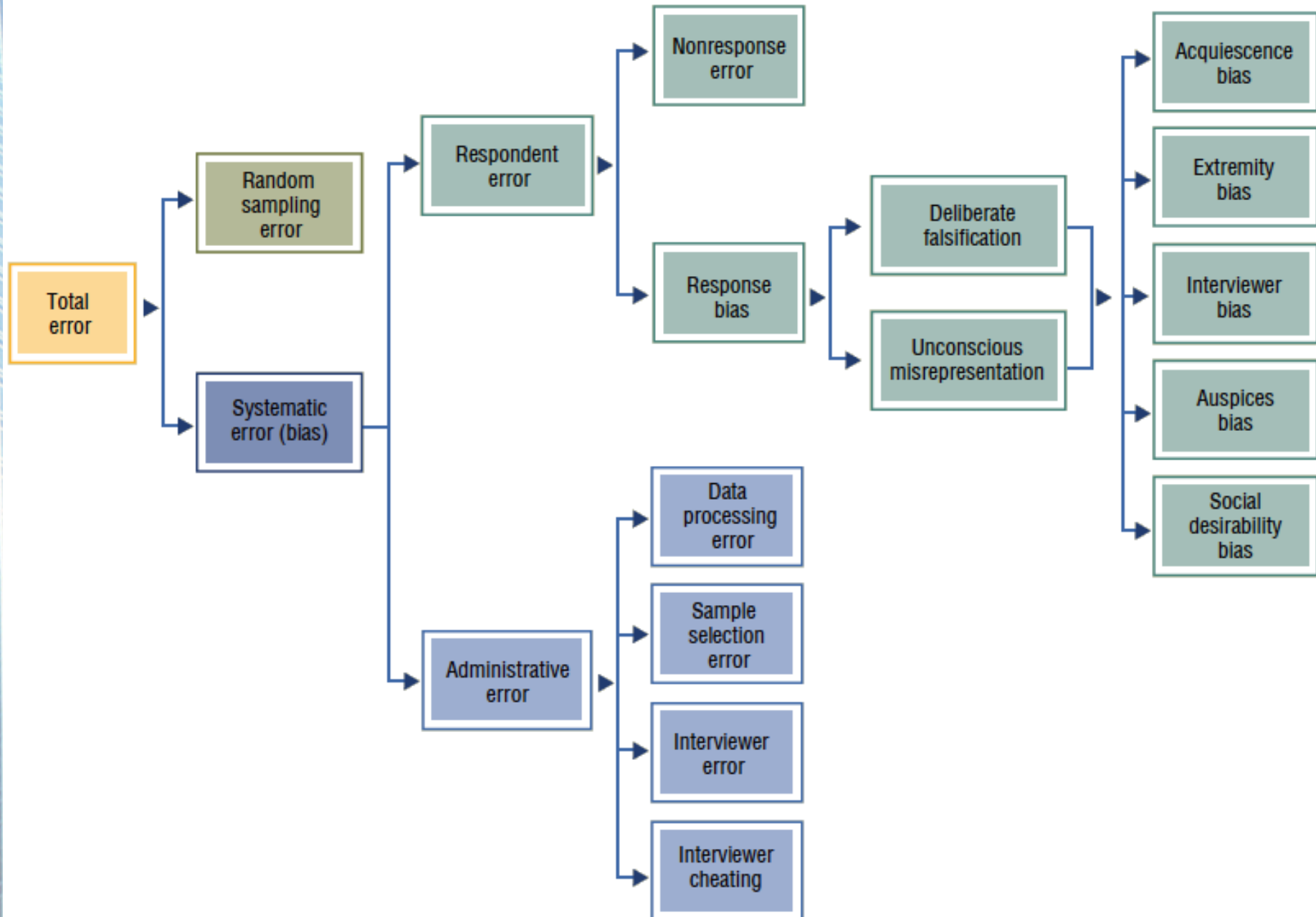


OPEN-ENDED QUESTIONS

- ***Advantages***
 - Permits detail, clarification
 - Unanticipated answers
 - Reveals the logic behind a respondent's response
- ***Disadvantages***
 - Generalization or comparison difficult
 - Coding and statistical analysis difficult
 - Irrelevant answers possible
 - Bias towards educated



CATEGORIES OF SURVEY RESEARCH ERRORS





CATEGORIES OF SURVEY ERROR

1. **Random Sampling Error** – Statistical fluctuation due to chance variations in elements selected for the sample.
2. **Systematic (Non-Sampling) Error** – Error resulting from:
 - imperfections in the research design that leads to respondent error,
 - mistakes in executing the research.Often leads to *sample bias* – the tendency of sample results to deviate in one particular direction
1. **Respondent Error** – Sample biases that result from the respondent action (response bias) or inaction (non-response bias)
2. **Administrative Error** – Error caused by improper administration (execution) of the research tasks



CATEGORIES OF RESPONDENT ERROR

1. **Nonresponse Error** – The statistical difference between the results of a survey in which the sample includes only those who responded (answered the questions) and a survey that would include those who failed to respond. Reasons include: (a) not-at-home, (b) refusal, or c) self-selection
2. **Response bias** – Bias that occurs when those who respond tend to answer questions in a way that misrepresents the truth consciously (deliberate falsification) or unconsciously (unconscious misrepresentation)

Reasons for Deliberate falsification

1. To appear intelligent
2. To conceal personal information
3. To avoid embarrassment question
4. To get rid of the interviewer
5. To please the interviewer

Reasons for unconscious misrepre.

1. Question format or content
2. Interview situation
3. Misunderstanding the
4. Forgetting exact details
5. Unexpected question
6. Inability to express feelings





CATEGORIES OF RESPONSE BIAS

1. Acquiescence bias – tendency to agree with everything the interviewer says
2. Extremity bias – tendency to use extremes when responding to questions
3. Interviewer bias – tendency of interviewer's presence to affect respondent's answers
4. Auspices bias – tendency for knowledge of who is sponsoring the research to affect respondents' answers
5. Social desirability bias – tendency for respondents to give socially acceptable answers rather than the truth





CATEGORIES OF ADMINISTRATIVE ERROR

1. **Sample Selection Error** – Error caused by improper sample design or sampling procedure
2. **Interviewer Error** – Errors caused by interviewers making mistakes when performing their tasks
3. **Interviewer Cheating** – Errors caused by interviewers filling in fake answers to questions or falsifying entire questionnaires
4. **Data Processing Error** – Errors caused by incorrect data entry, computer programming, or other procedural errors during data analysis





CONSTRUCTING A GOOD QUESTIONNAIRE

GENERAL ADVICE

- Use social conversation as a guide to both question construction and questionnaire design
- Questions should be straight to the point
- One thing per question
- Avoid jargon, slang, abbreviations
- Avoid asking about vague future intentions or hypothetical questions
- Avoid wording that is influential or offensive
- If little is known use open questions; otherwise closed-ended questions with exhaustive and mutually exclusive response categories are typically better
- Borrow questions from existing literature
- Pre-test





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THANK YOU
for your attention