

Research Data Collection Techniques

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Research Data Classification

How to get data

- Primary
- Secondary

Data source

- Internal
- External

Data type

- Quantitative
- Qualitative

The nature of the data

- Discrete
- Continuous

Time of data collection

- Cross section
- Time series

Data scale

- Nominal
- Ordinal
- Interval
- Ratio

How to Collect Data

Data sources

- Primary
- Secondary

Data collection techniques

- Observation
- Survey
- Interview → documentation questionnaire
- Experiment

Data aspects of concern

- What data is collected
- With what data is collected
- Why is the data collected
- Where the data will be collected
- When is the data collected
- How to collect

Observation

- **Advantages:**

- ✓ data obtained by up to date (latest) → obtained from the circumstances happened at that time (during the event)
- ✓ data is more objective → closes the possibility of manipulation

- **Weaknesses:**

- ✓ takes a lot of time
- ✓ cannot be used for past and future data collection
- ✓ cannot be used to collect data relating to attitudes, motivation and behavior of respondents

Survey

- **Advantages:**

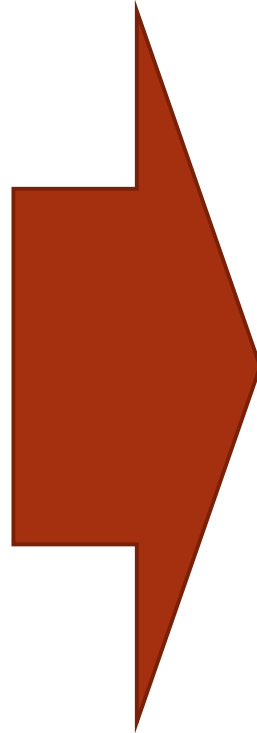
- ✓ authentic, objective → data source (respondent) directly
- ✓ be applied to data collection in a broad scope
- ✓ in certain cases, it is efficient in the use of data collection time

- **Weaknesses:**

- ✓ there is covert information → especially for information relating to the nature, motivation or behavior of respondents
- ✓ sometimes do not answer what they are but what should be
- ✓ too limited to certain answers
- ✓ often do not return questionnaires
- ✓ often the answers that are unwanted and do not appear as desired

Survey Preparation:

1. Questionnaire design
2. Test the questionnaire
3. Questionnaire improvement
4. Selection of respondents
5. Implementation



Good Questionnaire Making:

1. Clear instructions regarding the purpose of giving a questionnaire
2. Clear instructions on how to fill out the questionnaire
3. Using sentences that are easy to understand and not meaningful
4. Avoiding questions that are unclear, unnecessary and irrelevant
5. Avoid suggestive, pressing / threatening questions etc.
6. Logical and systematic sequence of questions
7. Keep the respondent's identity confidential so that the respondent is objective in answering

Interview

Type of interview:

- Unstructured interviews
- Semi-structured interviews
- Structured interviews

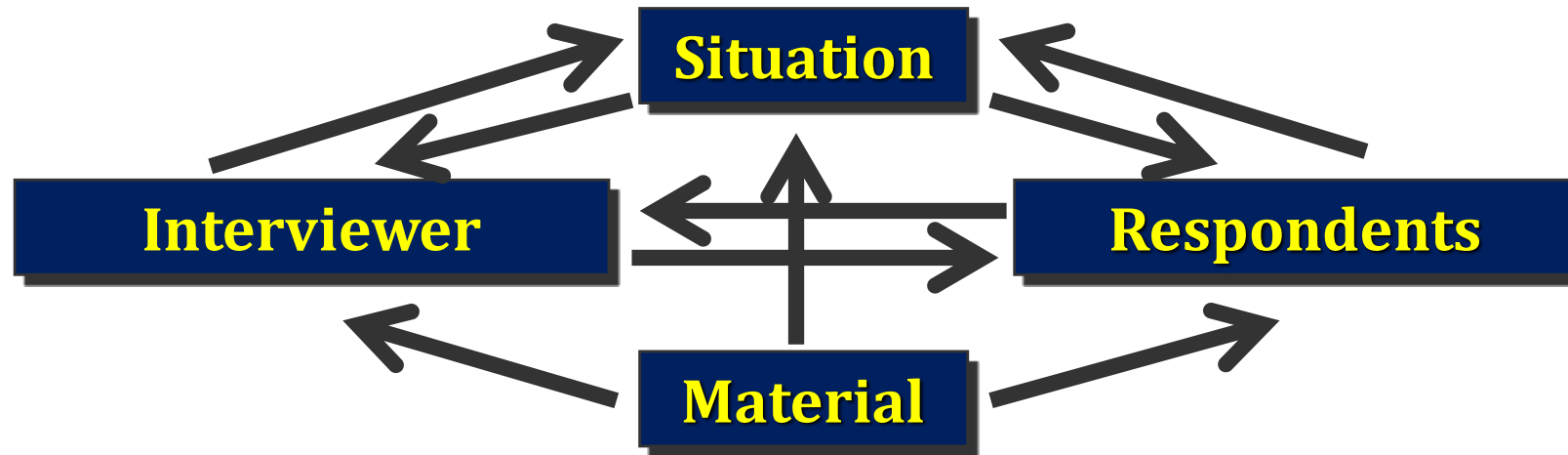
Three Keys to Successful Interviews

1. Prepare mentally
2. Attention to your verbal attitudes and abilities
3. Prepare important data / material

Preparation of Interview

1. Find a description for early information requirements
2. Determining individuals who will be interviewed / individual selection
3. Approach to target
4. Development of atmosphere to be current
5. Preparing the data collection tools
6. Make a visit / plan visit
7. Equipment preparation
8. Cost

Interview Components and Factors



Interview

- **Advantages:**

- ✓ flexibility
- ✓ nonverbal behavior
- ✓ completeness
- ✓ time of interview can be controlled

- **Weaknesses:**

- ✓ high cost & big power
- ✓ interview schedule depends on the respondent
- ✓ the success of the interview depends on the skill of the interviewer in digging, recording and interpreting each answer

Experiment

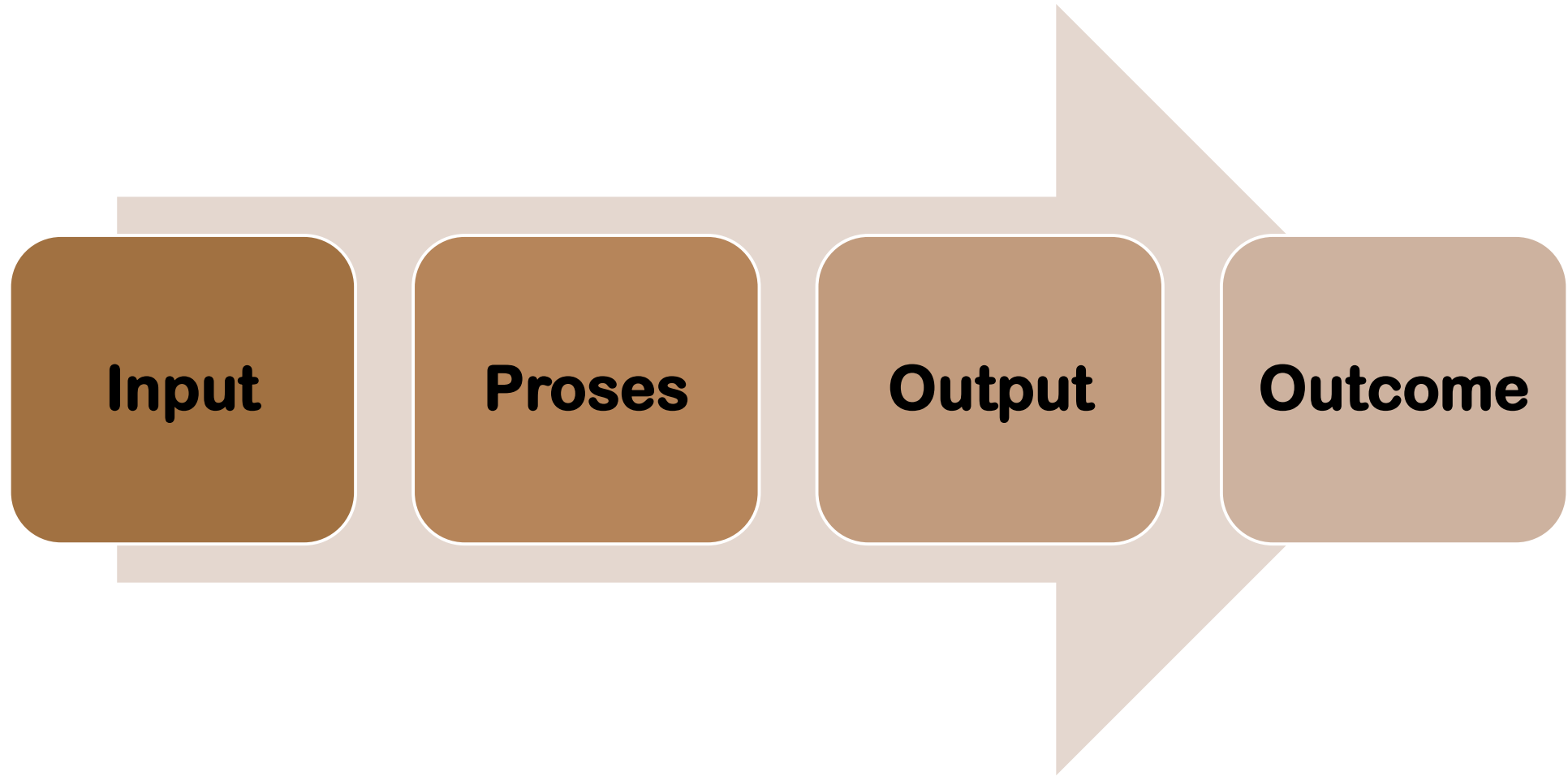
- **Advantages:**

- ✓ data obtained is authentic, objective → comes from data sources obtained directly
- ✓ time of research can be controlled

- **Weaknesses:**

- ✓ special treatment of objects
- ✓ risk of failure is greater
- ✓ relatively larger costs
- ✓ research time is not flexible

Good Data Retrieval Technique



Thank you for your attention