

Data Collection Methods

1. Observation

- Observation helps the researcher find out what is happening in the surrounding environment explicitly.
- First-hand data (primary) are gathered through the observation of events, behaviours, interactions, processes, etc. directly to obtain an understanding of the concepts.
- It is a systematic, selective, and purposeful way of watching, examining, or listening to what is happening in a natural setting and documenting that.

Observation Types

Naturalistic

- How the participants respond to their environment in real life or natural setting
- The researcher does not influence their behaviour

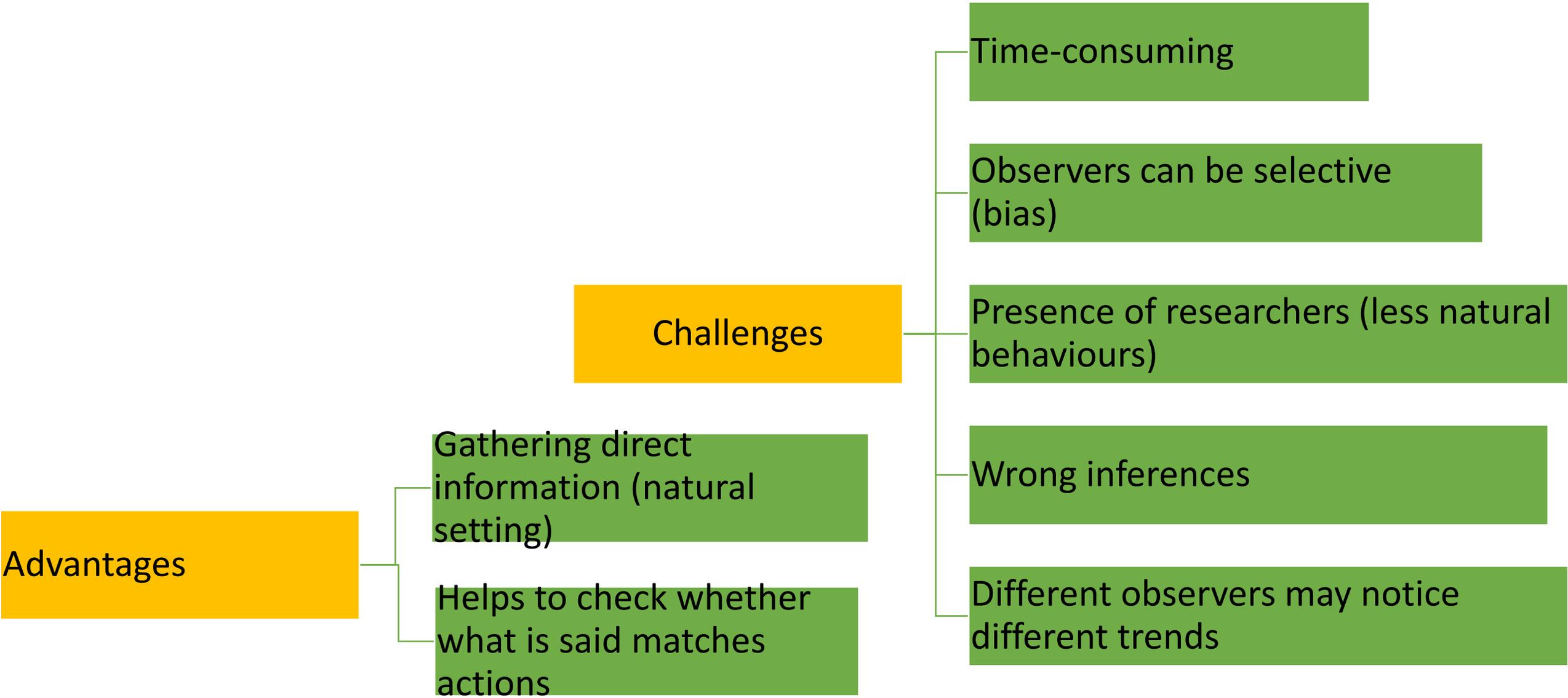
Participant

- The researcher participates in the activities of the group being observed with/ without knowing they are being observed

Four points to consider when using observation in research

1. What to observe
2. What types of observation to carry out
3. To what extent you should participate in the event you're observing
4. Whether to tell those you are observing about what you are doing.

Advantages & disadvantages of using observations in research



Advantages

Gathering direct information (natural setting)

Helps to check whether what is said matches actions

Challenges

Time-consuming

Observers can be selective (bias)

Presence of researchers (less natural behaviours)

Wrong inferences

Different observers may notice different trends

2. Interviews

- An interview is a situation where the interviewer asks the interviewee a series of questions.
- Interviews are conducted in face-to-face (in-person) situations and over the telephone. It is also possible to conduct interviews electronically, such as over the Internet.

Strengths and Weaknesses of Interviews

1. Strengths

- Can provide in-depth information.
- Can provide information about participants' subjective perspectives and ways of thinking.
- Allows probing (prompts) and posing of follow-up questions by the interviewer to obtain response clarity or additional information.
- Closed-ended interviews provide the exact information needed by the researcher.
- Telephone and e-mail interviews usually provide a very quick turnaround.
- Relatively high response rates are often attainable

2. Weaknesses

- In-person interviews usually are time-consuming.
- Investigator effects might occur
- Measures need validation
- Data analysis can be time-consuming for open-ended items.

3. Focus Groups

- A focus group is a situation where a focus group moderator keeps a small and homogeneous group (of 6–12 people) focused on the discussion of a research topic or issue.
- A focus group should not be viewed as a group interview because the emphasis is on small-group interaction and in-depth discussion among the participants about the issues being studied.
- Focus groups are especially useful for exploring ideas and obtaining in-depth information about how people think about an issue.

Strengths and Weaknesses of Focus Groups

1. Strengths

- Provide a window into participants' internal thinking.
- Can obtain in-depth information.
- Can examine how participants react to each other.
- Allow probing.
- Useful for exploring ideas and concepts.

• 2. Weaknesses

- Might be difficult to find a focus group moderator with good facilitative and rapport-building skills.
- Might be dominated by one or two participants
- Might include a large amount of extra or unnecessary information
- Data analysis can be time-consuming because of the open-ended nature of the data.

4. Questionnaires

The questionnaire has become one of the most popular research instruments applied in the social sciences. Questionnaires are certainly the most often employed data collection devices in statistical work, with the most well-known questionnaire type – the census – being the flagship of every national statistical office (Dornyei & Dewale, 2023, p.3).

Strengths & Weaknesses of Questionnaires

1. Strengths

- Allow the researcher to collect a huge amount of information from a large sample size in a relatively short time.
- The possibility of gaining highly accurate data
- Analysing the results easily by entering the achieved data to the software quickly in the majority of cases
- The achieved quantitative data can be used to compare and contrast the results of the study with others to measure the changes

2. Weaknesses

- Hard or inadequate to perceive gathered data in some cases such as emotions and feelings
- The possibility of misunderstanding the questions which can overshadow the answers
- Useless and wrong answers are prevalent
- Fatigue effects
- Halo effect

General Rules for Constructing a Questionnaire

- Title
- Explain the importance of the questionnaire in its content
- Instructions
- Use simple and short items
- Use understandable and clear statements for all respondents with different educational levels
- Include both positively and negatively worded items
- Do not use more than one question (double-barrelled) in one item
- Avoid directing the respondent to any answer using objective questions