

**Bonus Table 1**  
**Strengths and Weaknesses of Tests**

Strengths of tests (especially standardized tests)

- Can provide measures of many characteristics of people.
- Often standardized (i.e., the same stimulus is provided to all participants).
- Allows comparability of common measures across research populations.
- Strong psychometric properties (high measurement validity).
- Availability of reference group data.
- Many tests can be administered to groups which saves time.
- Can provide “hard,” quantitative data.
- Tests are usually already developed.
- A wide range of tests is available (most content can be tapped).
- Response rate is high for group administered tests.
- Ease of data analysis because of quantitative nature of data.

Weaknesses of tests (especially standardized tests)

- Can be expensive if test must be purchased for each research participant.
- Reactive effects such as social desirability can occur.
- Test may not be appropriate for a local or unique population.
- Open-ended questions and probing not available.
- Tests are sometimes biased against certain groups of people.
- Nonresponse to selected items on the test.
- Some tests lack psychometric data.

**Bonus Table 2**  
**Strengths and Weaknesses of Questionnaires**

Strengths of questionnaires

- Good for measuring attitudes and eliciting other content from research participants.
- Inexpensive (especially mail questionnaires and group administered questionnaires).
- Can provide information about participants' internal meanings and ways of thinking.
- Can administer to probability samples.
- Quick turnaround.
- Can be administered to groups.
- Perceived anonymity by respondent may be high.
- Moderately high measurement validity (i.e., high reliability and validity) for well constructed and validated questionnaires.
- Closed-ended items can provide exact information needed by researcher.
- Open-ended items can provide detailed information in respondents' own words.
- Ease of data analysis for closed-ended items.
- Useful for exploration as well as confirmation.

Weaknesses of questionnaires

- Usually must be kept short.
- Reactive effects may occur (e.g., interviewees may try to show only what is socially desirable).
- Nonresponse to selective items.
- People filling out questionnaires may not recall important information and may lack self-awareness.
- Response rate may be low for mail and email questionnaires.
- Open-ended items may reflect differences in verbal ability, obscuring the issues of interest.
- Data analysis can be time consuming for open-ended items.
- Measures need validation.

**Bonus Table 3**  
**Strengths and Weaknesses of Interviews**

Strengths of interviews

- Good for measuring attitudes and most other content of interest.
- Allows probing and posing of follow-up questions by the interviewer.
- Can provide in-depth information.
- Can provide information about participants' internal meanings and ways of thinking.
- Closed-ended interviews provide exact information needed by researcher.
- Telephone and e-mail interviews provide very quick turnaround.
- Moderately high measurement validity (i.e., high reliability and validity) for well constructed and tested interview protocols.
- Can use with probability samples.
- Relatively high response rates are often attainable.
- Useful for exploration as well as confirmation.

Weaknesses of interviews

- In-person interviews usually are expensive and time consuming.
- Reactive effects (e.g., interviewees may try to show only what is socially desirable).
- Investigator effects may occur (e.g., untrained interviewers may distort data because of personal biases and poor interviewing skills).
- Interviewees may not recall important information and may lack self-awareness.
- Perceived anonymity by respondents may be low.
- Data analysis can be time consuming for open-ended items.
- Measures need validation.

**Bonus Table 4**  
**Strengths and Weaknesses of Focus Groups**

Strengths of focus groups

- Useful for exploring ideas and concepts.
- Provides window into participants' internal thinking.
- Can obtain in-depth information.
- Can examine how participants react to each other.
- Allows probing.
- Most content can be tapped.
- Allows quick turnaround.

Weaknesses of focus groups

- Sometimes expensive.
- May be difficult to find a focus group moderator with good facilitative and rapport building skills.
- Reactive and investigator effects may occur if participants feel they are being watched or studied.
- May be dominated by one or two participants.
- Difficult to generalize results if small, unrepresentative samples of participants are used.
- May include large amount of extra or unnecessary information.
- Measurement validity may be low.
- Usually should not be the only data collection methods used in a study.
- Data analysis can be time consuming because of the open-ended nature of the data.

**Bonus Table 5**  
**Strengths and Weaknesses of Observational Data**

Strengths of observational data

- Allows one to directly see what people do without having to rely on what they say they do.
- Provides firsthand experience, especially if the observer participates in activities.
- Can provide relatively objective measurement of behavior (especially for standardized observations).
- Observer can determine what does not occur.
- Observer may see things that escape the awareness of people in the setting.
- Excellent way to discover what is occurring in a setting.
- Helps in understanding importance of contextual factors.
- Can be used with participants with weak verbal skills.
- May provide information on things people would otherwise be unwilling to talk about.
- Observer may move beyond selective perceptions of people in the setting.
- Good for description.
- Provides moderate degree of realism (when done outside of the laboratory).

Weaknesses of observational data

- Reasons for observed behavior may be unclear.
- Reactive effects may occur when respondents know they are being observed (e.g., people being observed may behave in atypical ways).
- Investigator effects (e.g., personal biases and selective perception of observers)
- Observer may “go native” (i.e., over-identifying with the group being studied).
- Sampling of observed people and settings may be limited.
- Cannot observe large or dispersed populations.
- Some settings and content of interest cannot be observed.
- Collection of unimportant material may be moderately high.
- More expensive to conduct than questionnaires and tests.
- Data analysis can be time consuming.

**Bonus Table 6**  
**Strengths and Weaknesses of Secondary/Already Existing Data**

Strengths of documents and physical data:

- Can provide insight into what people think and what they do.
- Unobtrusive, making reactive and investigator effects very unlikely.
- Can be collected for time periods occurring in the past (e.g., historical data).
- Provides useful background and historical data on people, groups, and organizations.
- Useful for corroboration.
- Grounded in local setting.
- Useful for exploration.

Strengths of archived research data:

- Archived research data are available on a wide variety of topics.
- Inexpensive.
- Often are reliable and valid (high measurement validity).
- Can study trends.
- Ease of data analysis.
- Often based on high quality or large probability samples.

Weaknesses of documents and physical data:

- May be incomplete.
- May be representative only of one perspective.
- Access to some types of content is limited.
- May not provide insight into participants' personal thinking for physical data.
- May not apply to general populations.

Weaknesses of archived research data:

- May not be available for the population of interest to you.
- May not be available for the research questions of interest to you.
- Data may be dated.
- Open-ended or qualitative data usually not available.
- Many of the most important findings have already been mined from the data.