Subjective and objective data

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Core ideas

Subjective data depend on personal opinion, interpretation or judgement.

Objective data are recorded in a way that is less dependent on personal judgement.

Self-reports often produce subjective data because participants describe their own feelings or experiences.

Objective measures can include reaction times, recall scores, counts of behaviour or physiological readings.

Subjective data can give insight into personal experience, but may be affected by bias or social desirability.

Objective data can improve reliability, but may miss meanings or feelings that are important to the research question.

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Key terms

Subjective data: Data influenced by personal opinion, judgement or interpretation.

Objective data: Data recorded with less dependence on personal judgement.

Self-report: A method where participants answer questions about themselves.

Rating scale: A numerical scale used to record a judgement or feeling.

Behaviour count: Recording how often a specific behaviour occurs.

Physiological measure: A body-based measure such as heart rate or brain activity.

Bias: A factor that can distort data or interpretation.

Interpretation: Making meaning from data after it is collected.

Further detail and evidence

Objective recording is less dependent on personal judgement; subjective data express an experience or interpretation. This distinction differs from numerical/descriptive form. Instrument readings can be objective while their interpretation as a psychological state remains uncertain.

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Applying the ideas

An eye electrode records a physiological signal; the dream report describes subjective experience. A numerical pain score is quantitative but subjective. A bottle-opening time is objectively recorded, but opening does not prove medication ingestion. Identify the measure and the construct separately.

Worked example: Classify two data examples from a stress study as subjective or objective. A student's rating of how stressed they feel from 1 to 10 is subjective because it depends on the student's personal judgement. A heart-rate reading during the same task is more objective because it is recorded by equipment and is less dependent on opinion. Both can be useful because they show different sides of stress.

Worked example: Assess one reason to collect both subjective and objective data. Collecting both types can give a fuller picture. For example, a participant may show a high heart rate during a task, but their self-report can reveal whether they actually felt anxious or excited. The objective data can support reliability, while the subjective data adds meaning, although the two may not always agree.

Evaluation and connections

Subjective information can be essential when the construct is pain or feeling distressed. Objective indicators may improve reproducibility without capturing personal meaning. Neither type is inherently perfect; assess calibration, reporting bias, inference and fitness for the question.