

Overview of Research Methods

Research Method	Description	Key Strength	Major Weakness	Sample Research Question for this Method
Experiment	Manipulation of an (IV) independent variable under controlled conditions and measurement of its effect on a dependent variable (DV)	Can establish cause and effect relationship between the IV and the DV	The ability to generalize to real-world behavior can be limited.	Do students who take notes by hand make higher grades than those who just use highlighters?
Quasi-experiment	Measurement of the DV when a random assignment to groups is not possible or when researchers take advantage of existing conditions	Can provide strong evidence suggesting cause and effect relationship	Lack of random assignment can weaken the conclusion	How do scores on exams for students in online psychology courses compare to students enrolled in face-to-face courses?
Naturalistic Observation	Careful observation of human or other animals in real-life situations	Provide descriptive data about behavior with wide applicability	Loss of experimental control	Do people donate to the Salvation Army on the way into the store or on their way out of the store?
Surveys	Obtain large samples of abilities, beliefs, or behaviors at a specific time and place	Ease of administration, scoring, and statistical analysis	Distorted results because of sampling error, poorly phrased questions, and response biases	Do you believe there is intelligent life in the universe?
Case Studies	Intensive investigation of the behavior and mental processes associated with a specific person or situation	Provide detailed descriptive data and analyses of new, complex, or rare phenomena	It may not be representative of phenomena	How does my family handle disagreements?
Correlational Studies	Studies relationship between two or more variables; one variable changes as the other changes	Indicates the strength of the relationship between two or more variables	Does NOT determine cause and effect	Is there a correlation between gender and asking for help from other people?