

## Topic Page: [Quantitative Research](#)

### Summary Article: **Quantitative Research**

From *The SAGE Glossary of the Social and Behavioral Sciences*

One of the three major research paradigms, which includes qualitative research, mixed methods research, and quantitative research. Quantitative research relies primarily on the collection of quantitative data and has its own, unique set of assumptions and normative practices. Quantitative research usually assumes that human behavior exhibits some lawfulness and predictability that can be documented through empirical research. Goals include to describe, to predict, and to explain human phenomena. Quantitative researchers often try to study behavior under controlled conditions via experiments, in order to isolate the causal effects of independent variables. Popular methods of quantitative research are experimental research, survey research, and structured observational research. Quantitative data are collected based on precise measurement of variables using structured, standardized, and validated data collection instruments and procedures. Data are analyzed using descriptive and inferential statistics. The desired product is research findings that generalize broadly. Quantitative researchers attempt to minimize their biases during the research process by relying on standardized testing and measurement, continual testing of measurement procedures for reliability and validity, random selection of research participants, random assignment of research participants to comparison groups, measures of interrater reliability when multiple observers are used, and inferential statistics for estimating the values of population parameters and for testing statistical hypotheses. Although some writers continue to refer to quantitative research as “positivism,” virtually all quantitative researchers and the associated philosophy of science have moved past traditional positivism (born in the 19th century in the work of Auguste Comte) and past logical positivism, popular in the first half of the 20th century (found in the writings of A. J. Ayer, Rudolf Carnap, Otto Neurath, Hans Reichenbach, and Moritz Schlick). Popular philosophies of science currently associated with quantitative research are postpositivism, naturalism, physicalism, and scientific realism.

### **See also**

Descriptive Statistics (education, sociology), Experimental Research, Inferential Statistics, Longitudinal Versus Cross-Sectional Data, Measurement, Nonexperimental Research in Quantitative Research, Quasi-Experimental Research, Sampling in Quantitative Research, Validity in Quantitative Research, Variable (education, sociology)

**APA**

Chicago

Harvard

MLA

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Quantitative research. (2009). In L. E. Sullivan (Ed.), *The SAGE glossary of the social and behavioral sciences*. Thousand Oaks, CA: Sage Publications. Retrieved from [https://search.credoreference.com/content/topic/quantitative\\_research](https://search.credoreference.com/content/topic/quantitative_research)

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## APA

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## Chicago

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## Harvard

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## MLA

"Quantitative Research." *The SAGE Glossary of the Social and Behavioral Sciences*, edited by Larry E. Sullivan, Sage Publications, 1st edition, 2009. *Credo Reference*, [https://search.credoreference.com/content/topic/quantitative\\_research](https://search.credoreference.com/content/topic/quantitative_research). Accessed 18 Sep. 2019.