



Empirical Research

What is empirical research? Empirical research is defined as research based on observed and measured phenomena. It reports research based on actual observations or experiments using quantitative research methods and it may generate numerical data between two or more variables. When writing a research paper, you may need to read and analyze an empirical article.

How to tell if an article is an empirical article?

- Is the article published in an academic, scholarly, or professional journal? Popular magazines such as *Time* or *Newsweek* do not publish empirical research articles; academic journals such as *American Economic Review* or *Journal of Psychology* may publish empirical articles. Some professional journals, such as *JAMA: Journal of the American Medical Association* publish empirical research. Other professional journals, such as *Coach & Athletic Director* publish articles of professional interest, but they do not publish research articles.
- Does the abstract of the article mention a study, an observation, an analysis or a number of participants or subjects? Was data collected, a survey or questionnaire administered, an assessment or measurement used, an interview conducted? All of these terms indicate possible methodologies used in empirical research.
- Empirical articles normally contain these sections:
 - **Introduction and literature review of related research**
 - **A statement of the research question(s) and method used to gather the data**
 - **Analysis of the results of the data gathered (quantitative or qualitative)**
 - **Discussion or conclusion**
 - **A substantial list of the references consulted throughout the article**

The sections may be combined, and may have different headings or no headings at all; however, the information that would fall within these sections should be present in an empirical article.

An empirical article is usually normally three or more pages long.

How to Search for Empirical Research

A quick way to look for empirical research is to type your search terms into the database's search boxes, then type STUDY OR STUDIES in the final search box to look for studies on your topic area.

Keywords to Use in Identifying Empirical Research

These are some keywords that you can use in literature searches to find empirical research:

Research	Protocol	Study
Empirical	Feasibility	Cross section
Quantitative	Pilot Project	Sensitivity
Qualitative	Reproducibility	Specificity
Case study	Generalizability	Predictive
Open-ended	Results	Longitudinal
Questionnaire	Method, methods, methodology	Prospective
Survey	Research design	Follow-up
Evaluation	Double-blind	Cohort
Instrument	Randomized, random, randomization	Analytic
Reliability	Selection criteria	Case control
Validity	Allocation, allocated	Retrospective
Cluster analysis		ANOVA

Data	Sample, sampling	MANOVA
Findings	Population	Regression
Interview		

How to Limit your Search

In the database, *Education Research Complete*, on the Advanced Search page you should see a PUBLICATION TYPE field; highlight the appropriate entry. Empirical research may not be the term used; look for a term that may be a synonym for empirical research. *ERIC* uses REPORTS-RESEARCH. Also find the field for INTENDED AUDIENCE and highlight RESEARCHER. *PsycNet* includes a field for METHODOLOGY where you can highlight EMPIRICAL STUDY. Examine your article to make sure it fits the criteria for an empirical research article.