

Scientific Method ^[1]



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Scientific Research Methodology ^[3]

A beginners guide on key concepts of the Scientific Method, Science, Research and Experiments.

» [What is the Scientific Method?](#) ^[4] » [Variables in Research](#) ^[5] » [Hypothesis Testing](#) ^[6]
» [Validity and Reliability](#) ^[7]



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Experimental Research is used to understand causality. ^[8]

Experiments use manipulation and controlled testing to understand causal processes.

» [Blind Experiment](#) ^[9] » [Cause and Effect](#) ^[10]



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Research Process and Scientific Reasoning ^[11]

The steps and aims of the research process and reasoning in the Scientific Method.

» [What is the Scientific Method?](#) ^[4] » [Steps of the Scientific Method](#) ^[12] » [Definition of](#)



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Different Research Designs [14]

Descriptions of different types of scientific research designs

[Qualitative Research](#) [15] » [Quantitative Research](#) [16] » [True Experimental Design](#) [17]



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Statistics Tutorial [18]

Descriptions of different usages of statistics in Science and Research.

» [Calculate Standard Deviation](#) [20] » [ANOVA](#) [21] » [Normal](#)



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Writing a Research Paper [23]

An introduction on how to write a research papers, term papers and other academic articles. Styles, citations and tips.

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Philosophy of Science [29]

Philosophy of Science investigates the different branches of science and its underlying structure.

» [History of the Philosophy of Science](#) [30] » [Paradigm Shifts](#) [31]



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Ethics in Research [32]

Having high standards of ethics in research is crucial for support from funders and the public.

[» Informed Consent Policy](#) ^[33] [» Privacy and Confidentiality](#) ^[34]



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Psychology ^[35]

Psychology is trying to give insights on human mind and behavior.

[Psychology Experiments](#) ^[36] [» Bobo Doll Experiment](#) ^[37] [» Asch Experiment](#) ^[38]



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Biology ^[39]

Biology looks at living organisms and their relationship to nature.

[Albinism](#) ^[40] [» Law of Segregation](#) ^[41]



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Physics ^[42]

Experimentation in the field of physics has changed the modern world, yielding inventions beyond imagination.

[Franklin Kite Experiment](#) ^[43] [» J. J. Thomson's Cathode Ray Experiment](#) ^[44]



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Medical Research History ^[45]

increased the average lifespan by tenfolds of years.

[Discovery of Penicillin](#) ^[46] [» Who Discovered DNA?](#) ^[47]



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Science Experiments for Kids ^[48]

Resources for teachers and Parents, Ideas for Experiments.

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