



Description

While burning the midnight oil during [literature review](#), most researchers do not realize that the methods and methodology section forms the spine of their research. Researchers use a systematic foundation to conduct research by implementing methods. Methods are strategies, tools, and techniques, which are often confused with methodology that consists of a systematic and theoretical analysis of the research methods. The difference between methods and methodology needs to be well understood while [documenting your research](#).

What is Methods and Methodology?

Researchers implement systematic methods to conduct a research. They define the research topic to establish a deeper and clearer understanding in the methods section. Furthermore, methods consist of all techniques, strategies, and tools employed by a researcher to complete the experiment and find solution to the research problem.

However, methodology is a systematic and theoretical approach to collect and evaluate data throughout the research process. It allows researchers to validate a study's rigor to acquire new information. The purpose of research methodology is to prove the credibility, validity, and reliability of a chosen research method.

Objective of Methods and Methodology

While the methods section is just a research tool or a component of research, methodology is the justification for using a particular research method.

The objective of research methods is to provide thorough [information of research design](#), participants, equipment, materials, variables, and procedures. It must allow other researchers to reproduce similar results based on the documented methods. Whereas, the objective of research methodology is to determine the accuracy and efficiency of the methods opted by the researchers for a particular experiment.

How to Write Methods and Methodology Section of a Research

Paper?

Most researchers are commonly asked to re-write the methods and methodology section as there exists an ambiguity in the understanding of these elements. One should understand that incorrectness in these sections may lead to repercussions which are uncalled for. A clear knowledge of methods and methodologies employed in research will also make your process of reviewing and understanding other literature easier. A robust method and methodology section is a point of validation for authentic research.

Methods

While [writing the methods section](#) you must remember the following:

- Authors must [duly cite all sources](#) that helped them in selecting the methods for the research study. Furthermore, it should also include parameters of past studies must to indicate relevance with the current study.
- It is mandatory to cite the sources of all participants of the study. The details of participants such as geographical location, age, sex, their initial conditions, etc. must be mentioned in the methods section.
- The methods section must also include the inclusion and exclusion criteria of subjects.
- Description of division of chosen group and their characteristics is also an element of the methods section.
- The methods section must also include the study design. Necessary preparations, software used, and instruments must be explained here.
- Finally, it must include statistical analyses. For example: type of data, their measurements, and statistical tests.

Methodology

A well-written methodology section must include the following:

- An introduction and explanation of reasons for the [systematic methodological approach](#) (qualitative, quantitative, or mixed method) used throughout the research process.
- The methodology section must indicate the applicability, validity, and credibility of all methods applied in the research.
- It must clearly describe specific data collation methods and provide detailed explanation of data analysis.
- Lastly, the methodology section must justify rationale for chosen research methods and procedures.

What are the Key Differences between Methods and Methodology?

These key points clearly establishes the difference between often mistaken methods and methodology section:

Methods

The objective of methods is to find solution to the research problem.

Methods are just behavior or tools used to select a research technique.

Methods are applied during the later stage of the research study. It comprises different investigation techniques of the study.

Methods encompasses of carrying out experiments, conducting surveys, tests, etc.

Methodology

The objective of methodology is to determine methods applied with a view to ascertain s

Methodology is analysis of all the methods investigation.

Methodologies are applied during the initial process. It is a systematic strategy to find solution t

Methodology encompasses several techniques these experiments, surveys, tests, etc.

In Short!

To summarize, we shall say that a technique is far more specific than a method and a method is far more specific than the methodology. It's beyond listing steps of experiment or audit trails that you follow to find solution to your research problem. With one methodology, you can apply several methods to support or reject the [research hypothesis](#). In conclusion, we can say that both methods and methodologies are an important part of research and are related to each other's existence.

How to write the broader strategy for the approach to find solution to the problem? When did you realize the difference between methods and methodology of research? How do you structure your methods and methodology section of your research papers? Moreover, did you have to rewrite the methods and methodology section? Share your experience with us in the comments section below! You can also visit our [Q&A forum](#) for frequently asked questions related to different aspects of research writing and publishing answered by our team that comprises subject-matter experts, eminent researchers, and publication experts.

Category

1. Manuscript Preparation
2. Publishing Research

Date Created

2021/07/01

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