

How to Write a Research Paper

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Title of the Paper

The title of the paper should be simple, exact to the point, attractive and reflection of the whole work.

Abstract

Research and development, now-a-days, is not limited to the field of medical sciences only. It is applicable to every field. Hence, writing research paper has become essential. Generally, a fresher in this field may face problem in writing research paper. In this article, the way of writing different sections of research paper, has been discussed.

An abstract is the real reflection of the whole work. Everybody's attention goes at abstract first. Because after reading an abstract, one can take idea about the relevance of the whole paper. It should be concise, relevant and real manifestation of work. Hence, first couple of sentences should focus on an idea about study. The key words should also be added at the end of the abstract with the help of which one can easily find the topic and know the relevance of the topic. The key words are the important and most frequently used words in the research paper.

Introduction

Introduction serves dual purpose. It gives background as well as outline of your research. A research paper can be used to investigate scientific, social, technical and industrial issues and to give some improved suggestions. Writing introduction for a research paper is very exigent task. It should be such that can attract the attention and create interest of the reader. It should exhibit the whole work which is to be done in the complete study. The length of introduction varies depending on the type of research and requirement of the study. This is good to start introduction with some key words or objective statement. Relevance of study should also be given under this. Generally, you should avoid using emotional words and the use of 'i', 'our', 'my' etc.

Review of Literature or Related Work

Quotation by Oscar Wilde, "Literature always anticipates life. It doesn't copy it, but moulds it to its purpose". Review of literature is very essential for real planning and after that carrying out of research work. It also enhances the knowledge base of researcher and provides direction for further study. As per ²John W. Best (1963), "A familiarity with the literature in any

problem area helps the students to discover what is already known, what methods of attack have been promising or disappointing and what problems remain to be solved". The existing literature is an image that replicates the past and based on which future can be designed in present. As per ¹Berg (1998), "The review of related studies in any field forms the foundation upon which all future work will be built". It is very necessary to mention the already published papers related to the topic in the study. It depicts the thorough knowledge, understanding, detailed study and thought of the concerned area. The length of the literature review depends on the total requirement of the study. The related studies can be summarized and mentioned in the study. Each study should mainly focus on objectives, research methodology adopted, type of study and the results in short. Before starting the work, one should have detail knowledge about the concerned studies and work done in the field so that the gap at present can be analyzed appropriately. Then focus what is novel in your work and what already has been done and what you want to do. This is a big opportunity to show how your work is different from others. Here, it can be shown that you have taken different hypotheses, assumptions, objectives and approach to solve the problem.

Research Methodology

Research methodology is a way to systematically solve the research problem. Therefore, it provides the framework based on which whole research is done. So, it is essential to clearly articulate the research methodology of the study in the beginning of the research. This chapter focuses on research methodologies adopted in the study. This chapter can be divided into different sections. As for a descriptive study, there can be eight major sections. The first section can discuss about the universe of study.

¹Berg, R.L. (1998), *Qualitative Research Methods for the Social Sciences*, 3rd Edition, Bostan and Baccon, chap. 1-3.

²John W. Best (1963), *Research in Education*, Prentice Hall of India (p) Ltd., New Delhi, Chap. 1-4.

In second section sample size, description of sample and sampling techniques can be discussed. The third section can throw light on sources of information about secondary data and primary data. The fourth section can describe the structure of questionnaire. The fifth section can throw light on pilot survey. The sixth section can describe the tools of data analysis and presentation. The seventh section can elaborate the development of null hypotheses. The eighth section can throw light on limitations of study.

State your research questions. A good question that which mention the problem in a testable hypothesis. Mention the hypotheses. Mention your problem statement.

Data analysis and Interpretation

In this chapter, an attempt is to be made to analyze the objectives and to work upon the hypotheses. In case of survey based work, first of all, you should classify the raw data in to some usable categories. Coding operations is usually done at this stage through which the data are transformed into symbols that can be tabulated and counted. Editing is also another

important task at this stage which improves the quality of data. Then comes tabulation wherein the classified data are put in the form of tables. Analysis of data is generally based on the calculations of various percentages, coefficients etc by applying statistical formulae. After analysis of data, you are in a position to test hypothesis which can be done by chi-square test, t-test, F-test etc. Hypothesis testing will result in either accepting hypothesis or in rejecting it. In this way, it depends upon the objectives that can give an idea about application of test. Thus, after testing hypotheses and accomplishing objectives, you can arrive at generalisations to build a theory.

Discussion

This chapter can be divided into four sections. The first section will throw light on findings of the study. In this section, all findings based on accomplishment of objectives and hypotheses should be given. Because findings reflect the importance of work on which the complete study is based. The second section will give the suggestions. Suggestion offers some policy or recommends some novel idea which contributes in reality. The third section will discuss the area for further research. Based on which some other work can be done or the same work can be extended. And the fourth section will conclude the study. This is the crux of the work. You have to summarize the major points in conclusion. But here need not to give new ideas or information or any supporting idea. Conclude your research by stating logical information or opinion formed by you in regard to your research.

Bibliography

Here you can mention the references that you have referred throughout the research because bibliography is an alphabetical list of references to be referred while writing report. The references of journals, books, magazines, newspapers, official gazettes, internet sources and all others which you have mentioned in your study can be given. But writing of bibliography should follow a specific format. This is necessary to write bibliography to give credit to the sources of information of any type and showing that you are respectfully borrowing information of others. The information that must be included in the bibliography is:

- a) Author
- b) Title
- c) Place of Publication
- d) Publisher
- e) Date of Publication
- f) Page Numbers.

Some Important Tips

The style of formatting depends upon the topic of your research and field of your study. MLA format is be used for literary research papers. APA format is used in social sciences research. Chicago format is used for historical research. The tone of the paper should not be changed throughout.