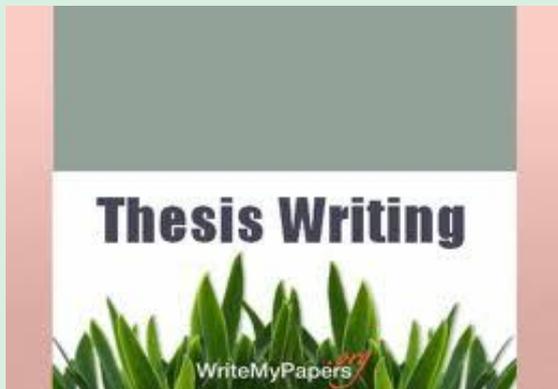


Writing of Research Reports or Projects

**Dr. Aruna Palta, Principal,
Govt. R. B.Naveen Girls' College, Raipur
(C.G.)**



Sections of the Research Report

In General the thesis consists of essentially three different general classes of material :

- The prefatory material
- The text
- The Supplementary material



Prefatory Material

It is sometimes called the front matter. It usually includes:

- Title page
- Certificates
 - a. Declaration of student
 - b. Certificate of guide
- Acknowledgements.
- Table of contents.
- List of tables,
- List of figures
- List of Plates
- List of Abbreviations
- Glossary
- Abstract
- Note :Prefatory pages are numbered with Roman numbers.



Text

The text is the main body of the thesis.
It consists of:

-  Introduction
-  Review of literature
-  Methodology
-  Results and discussion
-  Summary & Conclusion
-  Recommendations



Supplementary Material

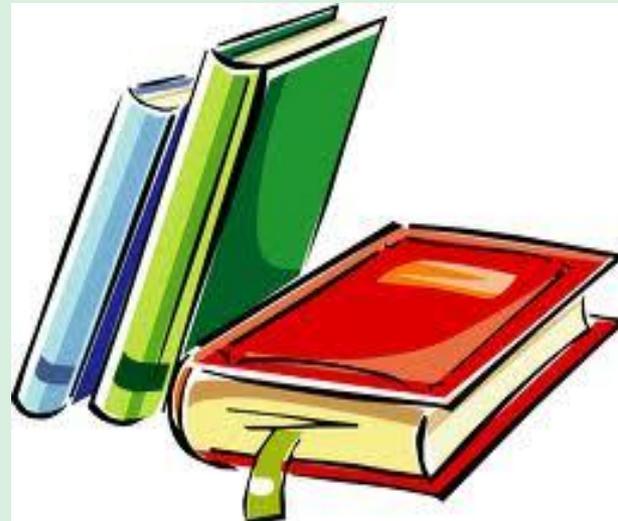
The supplementary material is the back-up material. It includes :

- Bibliography
- Appendices.



Final Report Format

- Title
- Prefatory Material
- Abstract
- Introduction
- Review of Literature
- Methodology
- Results
- Discussion
- Summary & Conclusions
- Recommendations
- References
- Appendices



Title

- Meaningful, to the point, catchy.
- All words except the articles (s.e. a, an, the) and propositions (in, of, from, to, with regards to, at) of the title should be capitalized. Capitalize the articles of the title.
- Avoid the use of abbreviations, chemical formulae, trademark name in the title.



Abstract

Abstract is a distillation of the thesis: a concise description of the problem(s) addressed, method of solving it along with results and conclusions. An abstract must be self-contained. Usually it does not contain references. Word limit is very important in Abstract. Remember: even though it appears at the beginning, an abstract is *not* an introduction. It is a résumé of Research Report. It is best written towards the end when the work is over and the entire report is being written.



Abstract Contd.....

- This is a short summary of the research work undertaken including:
 - Research Problem
 - Rationale of the study
 - Hypothesis (if any)
 - Methods applied
 - Findings
 - Major conclusions drawn.
- Thus an abstract should answer three basic questions:
 - What is the problems that is being researched?
 - What research method is used?
 - What was the finding?



Introduction

- The introduction introduces the specific subject of research to the reader.
- The main purpose of the introduction is to provide the necessary background or context for the research problem & justify the choice of the topic. It states clearly the objectives or hypothesis of the investigation.
- To begin with ,introduction should present a broad background of the topic.
- Then next ,the introduction should focus or narrow down the specific problem that is being investigated.
- Then, the general/specific objectives of hypothesis of the investigation should be given. The objectives/hypothesis framed earlier should be repeated in the finished project.



Review of Literature

- It involves a systematic survey of publications relevant to the selected field of study.
- The review of literature should be quite extensive, exhaustive & detailed.
- The choice of research topic, research objectives, methodology should come forth from the review of literature
- The literature review will be further useful while discussing results & drawing valid inferences from results.



Methodology

- This part will deal with defining & detailing the research design, material, methods, procedures, techniques, instruments etc. used to carry out the study.
- This would help any reviewer /examiner to ascertain that the methodology is appropriate and at the same time provide accurate information to any other researches to repeat the experiment.
- Research designs should clearly describe the type of study design i.e. descriptive/ observational/experimental or intervention study.
- In projects involving laboratory work, the chemicals, media & reagents- their sources, quantities & method of preparation should be given
- In field based research details regarding the setting of the study location of the field, transportation & preservation of samples etc.should be given .





- Subject profile and characteristics in terms of age, social class, religion, education should be included of the participants who took part in the study.

- Routine methods used for statistical analysis of data may be mentioned under a separate heading entitled “Statistical Analysis”.

- Methodology is always written in past tense since it is the recording of work already done.

- **Note: Good methodology can be described by the “Two Cs”:**

- **Clear and Clean**

- **Logical sequence of Methodology:-**

- Research Design

- Sample & Sampling method

- Instruments and materials

- Procedure for data collection

- Statistical Analysis

Results

- In this section the findings of the study are presented using text, tables and figures in a logical and clear way.
- Results should be recorded in past tense.
- No raw data should be presented here. Only processed, summarized & discriminatorily selected data should be presented.
- Good tables and figures are those that are (a) structured (b) clear and have suitable captions (c) supplement rather than duplicate information in the text.
- Figures like graphs, diagrams, charts, illustrations or any other pictorial/ graphical representations should be used to present data.
- All the tables and figures should be separately and serially numbered like Figure 1, Figure 2 and Table 1, Table 2 etc.
- Do not include the same data in both a Table and a Figure

Results Contd.....

- Numbers are an integral part of any research report. Certain rules should be followed while writing numbers:
- Spell out one digit number(six) & use figure for more than one digit (12).
- If any sentence starts with a number then it is always spelled irrespective of its size.
- In all the following cases the numbers are always written in figures: Date, Time, Money, Page number, Table number, Figure number, Units of measurement like kg, g, inches, feet, Its.etc.
- In series numbers are always written in figures: 2,12,23 etc.
- Independent fractions are spelled out:eg Half, Three fourth but fractions with whole numbers are written in figures :12 $\frac{1}{2}$.

Discussion

- This is the most challenging section to write.
- Begin discussion with an overview of the findings.
- Any unexpected results or problems encountered during the work must find a place in the discussion.
- Compare the results and interpretations with other references which have been taken for “Review of literature”.



- 
- Show how the data of the present work confine or contrast with the previously published work.
 - The discussion part must justify how the results have contributed to the existing knowledge & professional practice.
 - The discussion part must be in paragraphs dealing with different aspects/variables studied. Different headings can be used for different paragraphs.

Summary & Conclusions

- This section presents a summary of the entire work, written so that it could serve as a stand alone document.
- Conclusion should clearly state the conclusions drawn after analysis of the work. It can also incorporate the strengths, weaknesses and limitations of the study.



Recommendation

- It is the last section of the report, which should provide some practical recommendations for researches & scholars.



Bibliography

- It is a list of reference/publications usually arranged by author, data or subject.
- Bibliography should appear at the end of report.
- It can be arranged alphabetically & author data method can be adopted for example-
 - Standard Format for a Book:
Author: Title: Subtitle: City or Town: Publisher, Year of Publication.

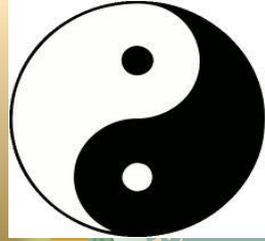
Example:

Ajzen I, Fishbein M. Understanding Attitudes and Predicting Social Behavior, Englewood Cliffs NJ: Prentice- Hall, 1980

- Standard Format for a Journal, Magazine, Periodical, or Newspaper Article: Author, "Title: Subtitle of Article." Title of Magazine, Journal of Newspaper, Day, Month and Year of Publication: Page Number (s)



Styles of writing References



Bibliography may be written in either of the following styles:

APA Style (American Psychological Association) is most commonly used to cite sources within the social sciences.

For Journal Curtis, S.E.(1972). Air Environment and Animal Performance.*J. Animal Sc.*, 35 (4) : 628-634.

For Book Barr, P., Clegg, J. & Wallace, C. (1981). *Advanced Reading Skills*. London: Longman.



MLA Style (Modern Language Association) is most commonly used to cite sources within the liberal arts and humanities.

For Journal Curtis, S.E. "Air Environment and Animal Performance". *J. Animal Sc.* 1972. 35 (4) : 628-634

For Book Author. Title: Subtitle. City or Town: Publisher, Year of Publication.

eg King, Stephen. Black House. New York: Random Publishers, 2001.

. **Note:** Ignore any titles, designations or degrees, etc. which appear before or after the name of the author, e.g. Dr., Mr., Mrs., Ms.etc.

In-text citations



In the **Vancouver Style**, citations within the text are identified by Arabic numbers in round brackets or Arabic numbers in superscript. This applies to references in text, tables and figures. This is also known as number method of citation.

eg. All women irrespective of land status work for 14 hours in fields (5)

Harvard Style is name & date method of citing reference at the end of the text. Surname of author & year are written in parenthesis.

eg. All women irrespective of land status work for 14 hours in fields (Shrivastava and Dube,1998)

List of Appendices

- Appendices take material that does not have to be in the main body of the report.
- Appendix should include a sample of all the questionnaires, tools that have been used for the study.
- Any reference material i.e. standards/charts you used to compare your data may be included here as well.



THANKS

