

# **Thesis Writing Guidelines**

**For Terminal Qualification, viz. MS/MD/MDS,  
&  
M. Phil/PhD**



**Department of Medical Education  
Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad**

# Table of Contents

1. General Information:.....	3
1.1. Language:.....	3
1.2. Word Limit.....	4
1.3. Layout of Script .....	4
1.4. Font Size .....	4
1.5. Font Style .....	5
1.6. Margins .....	5
1.7. Paginations.....	5
1.8. Spacing.....	5
1.9. Corrections.....	5
1.10. Styles.....	5
2. PARTS OF THE THESIS IN REQUIRED ORDER.....	6
2.1. Title Page: .....	6
2.2. Dedication:.....	6
2.3. Acknowledgment Pages.....	6
2.4. Table of Contents (Compulsory) .....	7
2.4.1. List of Figures, Illustrations, Charts, .....	7
2.4.2. List of Tables .....	7
2.5. Supervisor’s Certificate .....	7
2.6. Abstract .....	7
2.7. Introduction.....	9
2.8. Review of Literature .....	9
2.9. Methodology:.....	9
2.10. Results:.....	11
2.11. Discussion .....	12
2.12. Conclusion(s).....	12
2.13. Limitations and Recommendation: .....	12
2.14. References.....	13
Binding:.....	13
Plagiarism Policy: .....	13

## **1. General Information:**

A thesis is a document submitted in support of candidature for an academic degree or professional qualification presenting the author's research and findings.

The university thesis is a document that contains relevant details of the research work conducted by the PG trainee relating to the problem selected. The objective of writing a thesis is to develop skills in trainees for:

- Collection and compilation of data,
- Analyzing and reviewing relevant literature available on the subject (both national and international),
- Developing medical writing habits as an art for writing scientific articles in medical journals.

The other advantages of writing a thesis include:

- Cultivating an inquiring mind
- Encouraging in depth study of common problems afflicting our people
- Generation of scientific data locally
- Keeping abreast of new developments locally and abroad
- Understanding the fundamentals of research

### **1.1. Language:**

- The writing of thesis must be planned in such a way that continuity of the theme is maintained.
- It must be written in trainee's own words and style. The language must be simple, direct and precise. Verbosity must be avoided.
- Direct quotations must be minimally used. If quoted, these must be given within inverted commas with full acknowledgment.
- The statements, other than trainee's own, must be supported with reference citation.

- The trainee, who plagiarizes or copies someone else’s thesis, will be liable for a disciplinary action by university, which may include debarring him/her from appearing in university examination for lifetime.
- Each table must be typed or computer-printed with double space, on a separate page. It must be numbered consecutively, in order of citation and inserted at the appropriate place in the text. Symbols and abbreviations, if used, must be explained in the footnote of each table.

## **1.2. Word Limit**

The objective of MS, MD, MDS, M. Phil and PhD thesis is to produce quality work. The thesis should be demonstrably creative, innovative, and original.

- The word limit for MS/ MD/ MDS and PhD thesis is (30000-35000 Words about 100 to 120 A4 size pages)
- The word limit for M. Phil thesis is between 25000-30000 words containing (80 to 120) A4 size pages
- These limits are excluding references/bibliography as well as annexure and appendices.

Whilst the regulations do not contain a clause relating to the maximum length of theses.

Trainees wishing to greatly exceed these sizes should discuss the matter with their supervisors.

## **1.3. Layout of Script**

Typescript should appear on one side only, lines spaced 1.5 to 2 pints. Footnotes, quotations, references and photographic captions may be single spaced. Where appropriate, these should contain lists giving the locations of figures and illustrations.

## **1.4. Font Size**

Title Page	14-18”
Headings / subheadings	14-16”
Text	12”
Footnotes	8-10”

Footnotes be given on the same page where reference is quoted

## 1.5. Font Style

Times New Roman / Arial / Courier New

## 1.6. Margins

At least 1¼ -1½ inches (3.17-3.81cm) on the left-hand side, ¾ - 1 inch (2 -2.54cm) at the top and bottom of the page, and about ½ - 0.75 inches (1.27 - 1.90cm) at the outer edge. The best position for the page number is at top-centre or top right ½ inch (1.27 cm) below the edge. Pages containing figures and illustration should be suitable paginated.

## 1.7. Paginations

- The preliminary pages (pages up to the first page of the text) are numbered with upper-case Roman numerals (I, II, III, etc.); are placed at the top of the page, at the right margin (1” down from the top edge and 1” from the right edge).
- Beginning with the first page of the text and continuing to the end of the thesis, number pages in sequence in Arabic numbers (1, 2, 3, etc.); are placed at the top of the page, at the right margin (1” down from the top edge and 1” from the right edge).

## 1.8. Spacing

- Double-space or at least 1.5 space the main body of the text in the thesis
- Single-space long quotations, tables, footnotes, endnotes, bibliography entries
- Double-space between entries

## 1.9. Corrections

- All pages must be free from any corrections. Do not use correction fluid (“white out”) or correcting tape because these corrections can bleed or flake away.

## 1.10. Styles

- The content, format and style of all elements of your thesis must conform to the APA style of Medical Writing (See [en.wikipedia.org/wiki/APA\\_style](https://en.wikipedia.org/wiki/APA_style))

## **2. PARTS OF THE THESIS IN REQUIRED ORDER**

### **2.1. Title Page:** (the title page without page number)

It is the very first page of thesis. The title is a concise statement identifying actual variables or theoretical issues under investigation and the relation between them. A title should be in minimum possible words that adequately describes the contents of research work/study all the words in the title are to be chosen with great care and the association with one another properly sequenced. This is also important for indexing the study. The title does not contain any abbreviation, chemical formulae, proprietary names and jargons etc.

The title should be written on the top in bold letters, followed by full name of trainee in the order of first, middle, initial and last name along with the highest academic degree. Then full name of Supervisor is mentioned under whom the entire research work/study has been completed together with his/her highest academic degree. At the bottom the name of department and institution is to be given, where research work/study has been conducted. The date of submitting thesis is given at the lowest end of the title page.

### **2.2. Dedication:**

It is an optional section, in which trainees normally dedicate their thesis to their parents, brother, sister, teachers, friends, spouses and/or children. The dedication is written in the center of a separate page in one or two lines and numbered in Roman numerals.

### **2.3. Acknowledgment Pages**

It is obligatory to make proper acknowledgements to everyone who helped you in any way during the course of your work including your Supervisor(s) and Supervisory Committee, and others in the department and elsewhere. In particular, the help received in the following for MS, MD, MDS, M. Phil and PhD should be acknowledged:

- **Intellectual** (guidance, assistance, advice)
- **Technical** (including materials, supplies)
- **Financial** (*e.g.*, HEC, or any other funding agency)
- **Departmental Support**
- **Any other facilitation:** Access to specialized equipment and facilities etc.

## 2.4. Table of Contents (Compulsory)

1. All headings and subheadings should be listed with page numbers.
2. Subheadings should be indented.

### 2.4.1. List of Figures, Illustrations, Charts, (must fit inside regular margins)

- All figures should be numbered **chapter-wise** (Figure 1.1, 1.2, --; 2.1, 2.2, --; 3.1, 3.2, --; 4.1 – etc.) and listed with page numbers.
- The list should include a short title for each figure but not necessarily the whole caption.

### 2.4.2. List of Tables

- All tables should be numbered **chapter-wise** (Table 1.1, 1.2, --; 2.1, 2.2, ---; 3.1, 3.2, -- --, 4.1 – etc.) and listed with page numbers.
- The list should include a short title for each table.

## 2.5. Supervisor's Certificate

It is placed after the acknowledgement and is numbered in the Roman numeral.

## 2.6. Abstract

A good abstract explains in a few lines what was actually done and why the work is important. It gives a summary of the major results preferably with some numbers along with the error limits. The final sentences explain the major implications of the work. The abstract should be single spaced.

- A good abstract is concise, readable, and quantitative.
- Length should be limited to a maximum of one page (250 words).
- Abstracts should not have any citations.
- Information in the title should not be repeated.

❖ **Brief answers to the following questions should be available in the abstract:**

- What exactly did you do
- Why did you do it? What question were you trying to answer?
- How did you do it? Mention the methods very briefly.
- What did you learn? State major results and conclusions.
- Why does it matter? Point out at least one significant implication.

**Structured Abstract**

It is the first section of the thesis. The abstract is a brief account of the thesis, summarizing the information given in each major section. It is different from the conclusion and identifies the basic contents of the thesis. It is written in past tense, emphasizing on important aspects of the thesis, with following headings:

- Introduction
- Objectives
- Study design
- Duration
- Setting
- Methods
- Results
- Conclusions.

At the end of abstract, three to ten (3-10) key words are identified and written. Selected key words should be from the Medical Subject Headings (MeSH), List of Index



## **2.7. Introduction**

It is second section of the thesis that presents the specific problem under study and reflects:

- The importance of the topic selected
- The rationale of the study and discusses the background.

Before writing introduction in the thesis, the trainee should study relevant literature retrieved from published papers. Relevant articles are selected, which improve the understanding of the topic. Rationale of the study should be mentioned at the end of introduction.

## **2.8. Review of Literature**

Review of the literature is essential. A comprehensive review of the current status of knowledge on the selected topic must be included. It should be a collective review and critique in the candidate's own words of various viewpoints supported by relevant data, and should not be copied from published work. The review should be properly referenced. References should preferably be of the last five years (at least 70%), including some published in the recent past. However, older references can be cited, provided that they are relevant and historical. It is also essential to include a review of the local literature. A special effort should be made to collect and review all work done in Pakistan on the chosen topic. This should include work published in recognized journals. Data collected by others, whether published or unpublished, must be acknowledged whenever included.

## **2.9. Methodology:**

Methodology section must contain the details of

### **Objectives**

Objectives are statements of intentions. They inform the reader clearly what the researcher plans to do in his/her work. Objective should start with an action verb and be sufficiently specific, measurable, achievable, relevant and time bound (SMART).

**Operational Definition:**

It is definition of a term specifically telling how it will be measured for e.g.:

a. *Morbidity*: this encompass a number of aspects viz. prolonged hospital stay, severe pain, immediate complications, long term sequelae. A research must define how a vague term will be measured.

b. *Efficacy*: These can be measured as

i. Time taken in relieve of symptoms which may be pain, fever, cough, heartburn etc.

ii. Taking into account number of side effects.

iii. Time taken for complete recovery student is requirement to specify how he/she will measure efficacy.

iv. Every aspect which can be measure in different ways, should be specified, how it will be measure in your study eg. Pain can be measured on the basis of visual analogue scale or on the basis of Likert scale like no pain, mild, moderate or severe pain so this should be specified that how will it be measure in your study.

**Hypothesis:**

A hypothesis is a statement showing expected relation between two variables and expectation of the researcher on the basis of his/her experience and literature review.

**Material and Methods:**

SETTING: Name and place where the research work has been conducted – community based or facility based (e.g. hospital, laboratory).

DURATION OF STUDY: How long did the study take.

SAMPLE SIZE: how many patients were included. If there were groups how many per group?

SAMPLING TECHNIQUE: Probability or Non probability.

SAMPLE SELECTION:

**Inclusion criteria:** on what bases were patients inducted in the study.

**Exclusion criteria:** on what bases were patients be excluded from the study.

**STUDY DESIGN:** Mention the name of the appropriate study design.

**DATA COLLECTION PROCEDURE:** a detailed explanation of how the researcher performed research; how he/she measured the variable. It includes:

- Identification of the study variables
- Methods for collection of data
- Data collection tools (proforma/ questionnaire)

**DATA ANALYSIS PLAN:** A brief statement about what statistical procedures have been used. The exact name of the software and its version used must also be mentioned.

## **2.10. Results:**

The results should be in logical sequence with the main results being stated first. The data should be reported in sufficient detail to justify the conclusions. The results section should include the:

- Number of subjects in the study at its inception.
- Statistics describing the study population, and the number of subjects who were excluded.
- Number of subjects dropped out, or lost at any point in the study.
- To illustrate the main effects, the data should be presented in appropriate tables and figures.
- Data in tables or figures should not be repeated in the text where only important observations should be summarized.
- When data is statistically analyzed, information should be included about the tests of significance (such as chi-square or t-test) used, obtained magnitude or value of the test, the degrees of freedom, the probability level. Results should be presented in terms of confidence intervals wherever possible.
- If one statistical test has been used throughout the manuscript, the test should be clearly stated in the methods section. If more than one statistical test has been used, the statistical tests performed should be discussed in the methods and the specific test used reported along with the results.

## **2.11. Discussion**

The writing skills of a trainee are best projected in this section of the thesis. It is meant to fit the results of current research work into pre-existing pool of knowledge.

- If a hypothesis existed, whether the hypothesis was supported or refuted by the results should be addressed.
- The results of the study should be examined and interpreted, and implications described.
- Similarities and differences between the findings of the study and those of others should be brought out and explained through a review of the literature.
- The study results should be placed in context with published literature.

## **2.12. Conclusion(s)**

This is the last section of the text in which conclusions or inferences drawn on the basis of the results of study are described. The conclusions should be linked with the objectives of the study. Recommendations for further research may be included when appropriate e.g. if you find a statistically significant number of cases of anemia of severe degree in the school going girls of a particular area you can recommend further research to probe the cause of anemia in that area. It is important to be careful that the conclusions should not go beyond data and should be based on the study results and population.

## **2.13. Limitations and Recommendation:**

In this section, any limitation of the study should be mentioned and any recommendation based upon the study can be given.

- The limitations of the study should be discussed, including possible sources of bias and how these problems might affect conclusions and generalizability.
- The implications for clinical practice, in any specific directions for future research may be offered.

## 2.14. References

University follows the Vancouver reference style. References are serially numbered in the order in which these are mentioned in the text e.g., for the first cited reference the trainee may either put "1" at superscript or in parenthesis at the most relevant place in the sentence. This reference will then be listed at serial number "1" in the References section of the thesis. The next reference will be marked as number "2" at superscript or in parenthesis and listed at number "2" in the References section and so on. References in the text, tables and legends are identified by Arabic numerals within parenthesis. Only reference of articles indexed/abstracted in Medline, Excerpta Medica, Extra-Med and those published in journals recognized by the Pakistan Medical & Dental Council may be listed. The trainee is expected to check all parts of each reference against the original publication, before the manuscript of the thesis is submitted.

### **Binding:**

All final theses and published work presented for higher degrees must be bound in a permanent form approved by the Advanced Studies and Research Board; where printed pamphlets or off-prints are submitted in support of a thesis, they must be bound in with the thesis, or bound in such manner as Binderies may advise. Front cover should give title of the thesis, name of the candidate and the name of the Institute/ Department/ Centre/ College through which submitted, in the same order from top to bottom. The lettering may be in boldface and properly spaced. Their sizes should be: title 24 pt., name of the candidate 18 pt. and the name of the department/ institute/ centre/ college 18 pt.

### **Plagiarism Policy:**

The university strictly follows the plagiarism policy of Higher Education Commission of Pakistan (HEC) for synopsis and thesis. The detailed material related to plagiarism policy of HEC, is available on SZABMU website.

According to the Concise Oxford Dictionary, **Plagiarism** is defined as "**taking and using the thoughts, writings, and inventions of another person as one's own**". This, or various similar definitions found in recognized publications / documents, are very broad and

can be used to create awareness about Plagiarism but are not practical enough to apply in order to ascertain guilt or innocence in specific cases. In order to establish the violation of ethical norms, or academic or intellectual dishonesty resulting from Plagiarism and to take punitive actions in this regard, it is necessary that the variety of forms in which Plagiarism manifests itself are known. These include but are not limited to the following:

- “Verbatim copying, near-verbatim copying, or purposely paraphrasing portions of another author's paper or unpublished report without citing the exact reference.
  - Copying elements of another author's paper, such as equations or illustrations that are not common knowledge, or copying or purposely paraphrasing sentences without citing the source.
  - Verbatim copying portions of another author's paper or from reports by citing but not clearly differentiating what text has been copied (e.g. not applying quotation marks correctly) and /or not citing the source correctly”.
  - "The unacknowledged use of computer programs, mathematical / computer models / algorithms, computer software in all forms, macros, spreadsheets, web pages, databases, mathematical deviations and calculations, designs / models / displays of any sort, diagrams, graphs, tables, drawings, works of art of any sort, fine art pieces or artifacts, digital images, computer-aided design drawings, GIS files, photographs, maps, music / composition of any sort, posters, presentations and tracing."
  - "Self-plagiarism, that is, the verbatim or near-verbatim re-use of significant portions of one's own copyrighted work without citing the original source."
- All the postgraduate trainees are required to strictly follow the guideline for plagiarism before submitting their thesis or synopsis. The trainees can get plagiarism clearance certificate before submission of thesis from the university. It is mandatory to submit plagiarism report along with thesis for final approval.

## **Student Checklist**

### **Manuscript Organization**

- Use 8 ½” x 11” high-quality, plain white bond paper with minimum 20-lb weight and
- Text on one side of paper only
- Standard type-face (Times New Roman or Arial) of uniform size; tables, figures and appendices may use a same type-face and size
- Left margin - 1½ inches to allow for binding
- Top margin – 1 inch above the first line of type
- Right and bottom margin - should be at least 1 inch
- Indentations – five spaces in from the left margin
- Left justify all text
- Spacing according to general guidelines outlined in this guide
- Pagination according to format outlined in this guide
- No unacceptable corrections to copy
- Plagiarism Clearance certificate from the university

### **Thesis Components**

- Blank page
- Title Page
- Acknowledgements
- Abbreviations not described in the text
- Table of Contents
- List of Tables (where applicable)
- List of Figures (where applicable)
- Abstract / Summary
- Introduction
- Literature review as separate chapters
- Methodology section (Explanation/Details of the study)
- Results Section
- Discussion
- Conclusion/s,

- Limitations and Recommendations
- References / Bibliography / Literature Cited
- Appendices (where applicable)
- Any other information specific to the respective discipline