FACULTY OF BUILT ENVIRONMENT

UNIVERSITI MALAYA

GUIDELINES FOR THE PREPARATION

OF RESEARCH PROJECT REPORT

(UNDERGRADUATE)

(Updated as of 18.5.2024)

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PREFACE

In the process of completing an undergraduate programme in the Faculty of Built Environment, and being awarded the degree by the Universiti Malaya, a candidate required to submit a research report, depending on the requirements of the specific programme.

The terms "research report", "dissertation" and "thesis" are defined as follows:

1. Research Report - the documentation of research prepared and submitted by the candidate for the award of an Undergraduate's or Master's programme by coursework;

2. Dissertation - the documentation of the original research prepared and submitted by the candidate for the award of a Master's Degree by Research and Master's Degree by Mixed Mode;

3. Thesis - the documentation of the original research prepared and submitted by the candidate for the award of a Doctoral Degree by Research and Doctoral Degree by Mixed Mode.

This guideline will assist candidates to meet the minimum requirements set by the Faculty of Built Environment, Universiti Malaya to complete the final form of a research report.

CHAPTER 1
FORMAT

1.1   Introduction

Research reports of the Faculty of Built Environment, Universiti Malaya reflect the standards that students need to abide by. As such, the rules and format in this document need to be strictly adhered to.

The guidelines in this document are specifically for the undergraduate students of the Faculty of Built Environment, Universiti Malaya in the process of preparation of research reports. The formats for in-text citations, references, tables and figures follow the 7th edition of the American Psychological Association (APA) guidelines.

1.2   Binding

A research report submitted shall be bound in one (1) volume.

For final submission prior to graduation, a research report submitted to the faculty should be bound in hard cover rexine with the colour **Black** (see Figure 1.1)

Front Cover Colour of Research Project (Black)

The cover must be of **A4 size** (210mm x 297mm).

The title of a research project report, name of author, name of the university and year of submission must be printed in **gold block** on the front cover. The letters for the Front Cover should be **font size 16, font type Arial Narrow, bold and in uppercase letters**. Refer Figure 1.2 for the page margins setting.
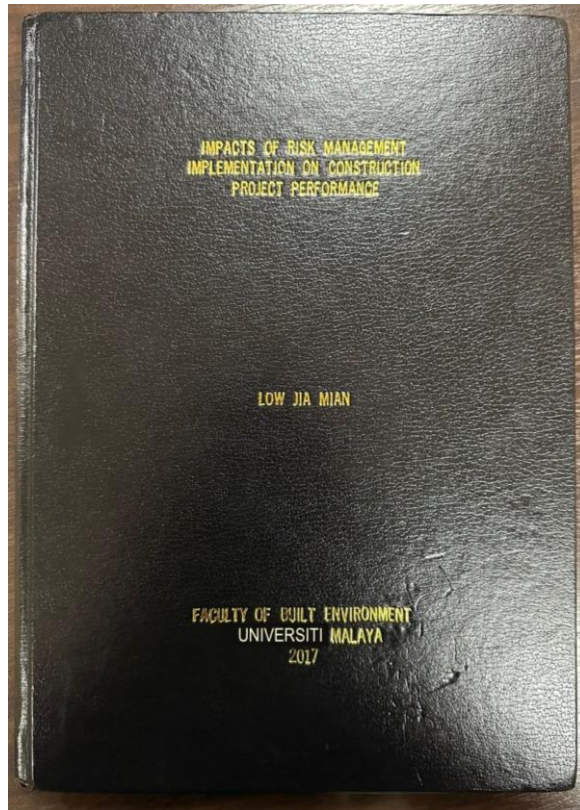
Figure 1.1 Sample of a copy of hardbound research project report for final submission
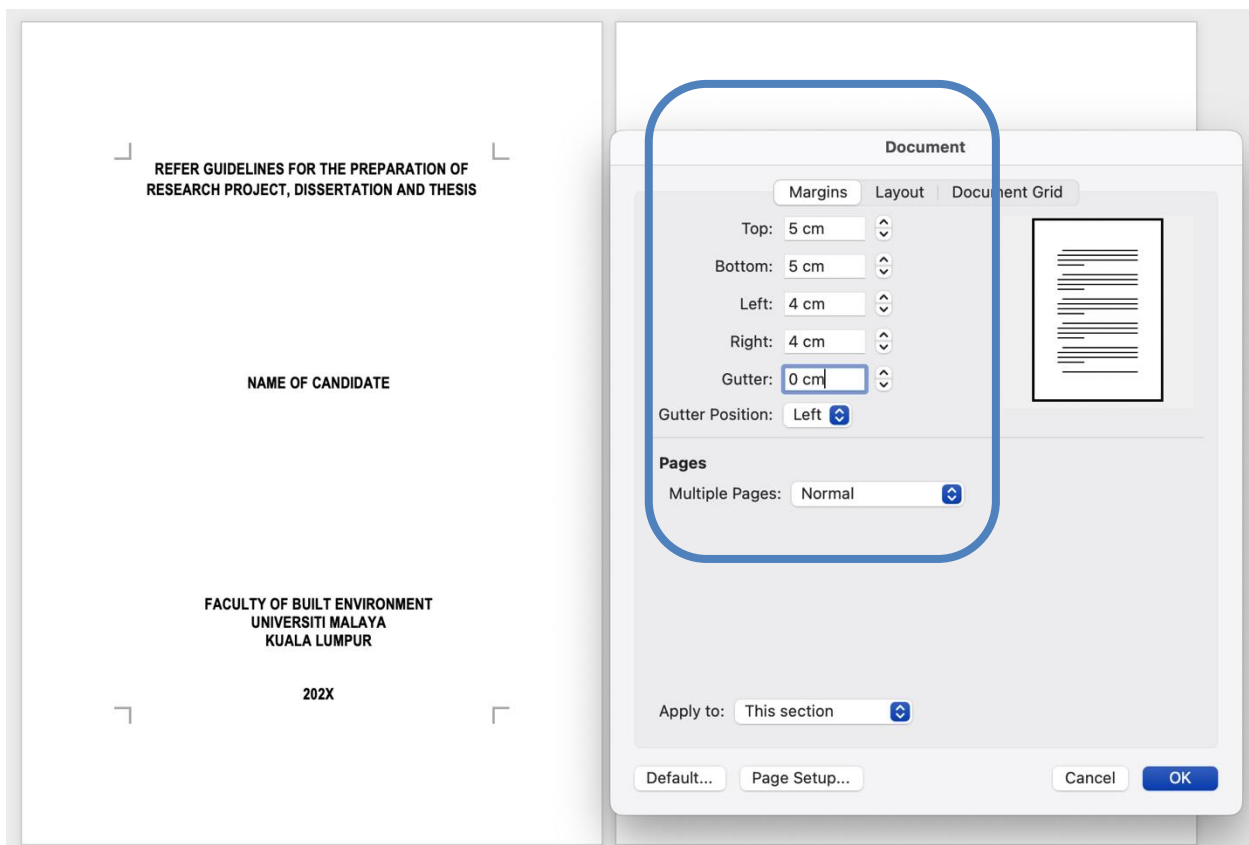
Figure 1.2 Formatting of the front cover of research project report

The spine of a research project report should show the title of research, name of author, year of submission and name of degree (see Figure 1.3). The year of submission must be in accordance with the year when the research report is submitted.

Figure 1.3 Example of spine format

1.3   Word Limit of Research Report

A research report (by coursework) should generally be in the maximum word limit of 30,000 words.

The minimum word length is determined by the faculty based on the programme standards according to their respective department (if any). The maximum length of words excludes footnotes, references, appendices, tables, figures and prefaces.

1.4   Quality of Paper and Duplication

The research report should be printed on single-sided, high quality white A4 paper (201mm $\times$ 297 mm; 80 grams).

The research report (hardbound copies) must be typed and duplicated by offset printing or good quality photocopying. All copies must be clean and legible.

1.5   Typing

The research report must be typed using font type **Times New Roman, font size 12** (except for tables and figures) and justified, using Microsoft Word, or similar word- processing software.

Words in a language that is different from the language of the research report must be typed in *italics*.

For mathematical texts, the use of *Equation Editor* or *LaTeX* is advisable. Script fonts are not permitted.

Text should be typed on one side of a paper only. A high-quality laser should be used for the printing.

Double-spacing should be used throughout the text, including abstract. Single-spacing should be used for long tables, quotations, footnotes and reference entries.

1.6   Margins

The stipulated margins for the general text are as follows:

- Top   : 2.0 cm
- Right   : 2.0 cm
- Left   : 4.0 cm
- Bottom   : 2.0 cm

Additional guidelines regarding margin are as follows:
- Do not type more than one sentence after the bottom margin. If it is necessary to do so, it should only be for a footnote or the completion of the last sentence of the chapter, topic or sub-topic or information in a figure.
- All tables and figures must be placed within the specified margins.
- The last paragraph of the page should contain at least two sentences. If it does not, the paragraph should begin on the next page.
- Use justify alignment for paragraphs. Do not indent the starting word of a paragraph.

1.7   Pagination

All page numbers are to be placed without punctuation 1.0 cm from the bottom edge at the right-hand side. The recommended font and size for the page numbers are font type Times New Roman with font size 10.

In addition, the page numbering system must conform to the following rules:
1. The *Preliminaries* include the Title Page, Original Literary Work Declaration, Abstracts, Acknowledgement, Table of Contents, List of Tables, List of Figures and List of Abbreviations. The *Preliminaries* are numbered in consecutive lower case Roman Numerals (i, ii, iii, iv, etc.)
2. The *Title Page* is considered as page i, but the number is not typed. The Roman numeral ii appears on the first page that follows the title page and continues through for all the *Preliminaries.*
3. The whole *Main Text* (Chapters and References) and *Supplementaries* (Appendices and List of Publications and Papers Presented) are numbered consecutively in Arabic numerals (1, 2, 3, etc.) beginning with 1 on the first page of the text.

1.8   Footnotes

Candidates are advised to limit the use of footnotes unless they are proved necessary to the document. APA does not recommend the use of footnotes. Nevertheless, the APA format suggests using footnotes for two types of information: content comments and copyright permission.

Footnotes are used to elaborate or provide additional information regarding matters discussed in that page.

Footnotes are recorded using Arabic numeric and numbered consecutively. Raised superscript numerals in the text refer to explanatory notes and documented sources appearing at the bottom of the page as footnotes. The advantage of using footnotes is that explanatory type of information can be presented along with source citations on the same page or place.

Footnotes should use a smaller font than the text (font size 8). When using footnote, a number formatted in superscript is inserted following the punctuation mark in the text. Footnotes should be placed at the bottom of the page on which they appear.

An example of a footnote:

The case study is preferred in examining contemporary events, but when the relevant behaviors cannot be manipulated by Yin (2009) can be found in in *Case study*.[2]

_____

[2] Yin, R. K. *Case study research: Design and method*. SAGE, 2009.

1.9 Tables

Tables are printed within the body of the text at the center of the frame and labelled according to the chapter in which they appear. Thus, for example, tables in Chapter 1 are numbered sequentially: Table 1.1, Table 1.2 and so on.

The caption should be placed **above** the table itself (Table 1.1). If the table contains a citation, the source of the reference should be included in the table caption.

Table 1.1: (Caption) (Source: ILAM, 2019; CIDB, 2019)

	(Table)	

If the table occupies more than one page, the continued table on the following page should indicate that it is a continuation, for example: 'Table 1.1, continued'. The header row should also be repeated.

1.10   Figures

Figures, like tables are printed within the body of the text at the centre of the frame and labelled according to the chapter in which they appear. Thus, for example, figures in Chapter 3 are numbered sequentially: Figure 1.4, Figure 1.5.

Figures, unlike text or tables, contain graphs, illustrations or photographs and their labels are placed at the bottom of the figure rather than at the top (using the same format used for tables) (Figure 1.4).

If the figure occupies more than one page, the continued figure on the following page should indicate that it is a continuation: for example: 'Figure 1.4, continued'.

If the figure contains a citation, the source of the reference should be placed after the label.
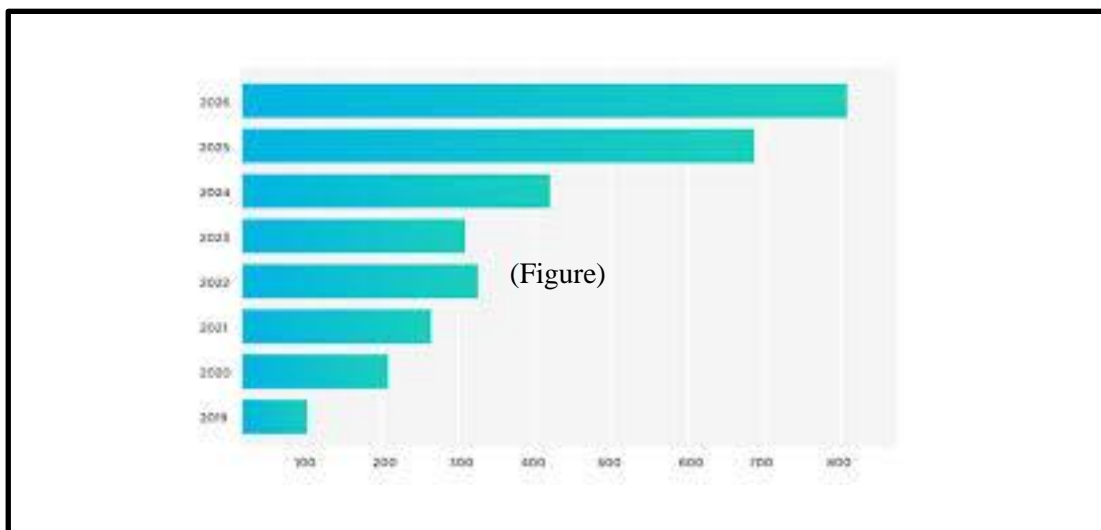
Figure 0.4: (Caption) (Source: Potter, 2013)

CHAPTER 2
LAYOUT AND ARRANGEMENT OF CONTENTS

The structure of the research report is based on a standard format which contains three main sections: *Preliminaries, Main Text* and *Supplementary*.
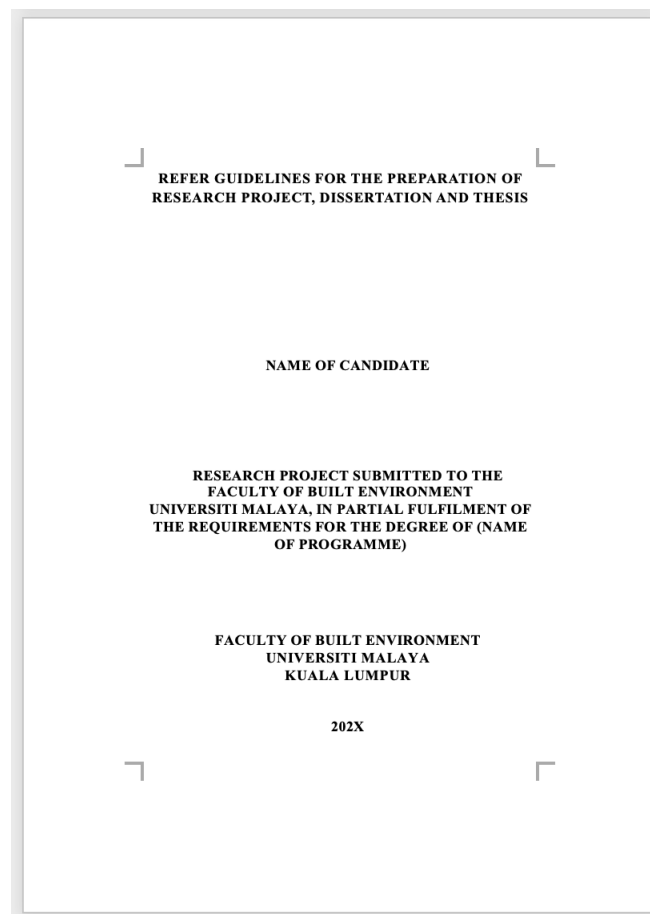
2.1 The Preliminaries

This section consists in order of the following:

2.1.1 Title Page

The title page is the first page after the front cover and should include:
- The final research title which has been approved by the faculty;
- Name of candidate according to the registration records;
- A statement according to the mode of programme;
- The year of submission;

This page is the first page of Roman numeral page number but it is not numbered. The text should be typed using font type **Times New Roman, font size 14 with 1.15 pt. line spacing**. Refer Figure 2.1.

REFER GUIDELINES FOR THE PREPARATION OF
RESEARCH PROJECT, DISSERTATION AND THESIS

NAME OF CANDIDATE

RESEARCH PROJECT SUBMITTED TO THE
FACULTY OF BUILT ENVIRONMENT
UNIVERSITI MALAYA, IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF (NAME
OF PROGRAMME)

FACULTY OF BUILT ENVIRONMENT
UNIVERSITI MALAYA
KUALA LUMPUR

202X

Figure 2.1: Title page sample

2.1.2 Original Literary Work Declaration Form

This form must be completed by the candidate and signed by a witness (Supervisors). The original signed form must be included in all copies of the research report. The form can be downloaded from the MAYA. If the research report is written in English, the English version of the form is used.

Figure 2.2: Original Literary Work Declaration Form Sample

2.1.3 Abstract

An abstract is a short summary of the research project/dissertation/thesis. An abstract should briefly describe the objectives (problem statement), the significance of research, research methodology, as well as the findings and conclusion of the research.

An abstract must not exceed 500 words, typed in a single paragraph with double- spacing, and written in Bahasa Melayu and English language. A maximum of five (5) keywords should also be listed below the abstract.

The Abstract page is assigned Roman numeral "iii" and the following pages should be numbered consecutively.

Each abstract / *abstrak* should have a title in bold capital letters with font size 12.

2.1.4 Acknowledgements

Most research reports include a message to convey appreciation to those who have been involved and provided their assistance directly or indirectly in the preparation of the study. This should not exceed a single page, which is numbered in Roman numeral accordingly.

2.1.5 Table of Contents

The table of contents lists the chapters, headings together with their page numbers. Headings should be labelled according to the chapter. The format of table of contents is shown in Appendix A.

2.1.6 List of Figures

This list should use the same numbers and captions which appear above the figures in the text and the appendices. The numbering system is according to chapter, for example: Figures in Chapter 1 are numbered sequentially as: Figure 1.1, Figure 1.2 and so on.

2.1.7 List of Tables

This list should use exactly the same numbers and captions that appear above the tables in the text and the appendices. The numbering system is according to chapter, for example: Tables in Chapter 1 are numbered sequentially as: Table 1.1, Table 1.2 and so on.

2.1.8 List of Abbreviations

If necessary to the presentation of the research report, this list appears after the list of Tables and Figures.

2.2 Main Text

The text is organised into chapters. There is no restriction on the total number of chapters but has to be agreed upon by the supervisor and the candidate. Opinions of the examiners and examination board can be taken into consideration. Generally, the basic structure of the research report is as follows:

Chapter 1: Introduction
This chapter introduces the problem to be investigated and its background; the aim, the research objectives and research questions must be all aligned logically; the significance of the study; the scope of the study; the limitation of the study and the definition of terms.

Note: The conceptual and theoretical frameworks can be included in chapter 1 or in chapter 2 Literature Review.

Chapter 2: Literature Review
This chapter discusses in detail a critical review of past literature by accredited scholars and researchers relevant to the study. The candidate can review in depth research conducted as necessary from older publications but should focus on recent/current publications within the latest five years.

Chapter 3: Methodology
This chapter discusses the research methods including research design, sampling procedure, instrumentation, data collection procedures and data analysis in detail with all the necessary justifications for the chosen research method.
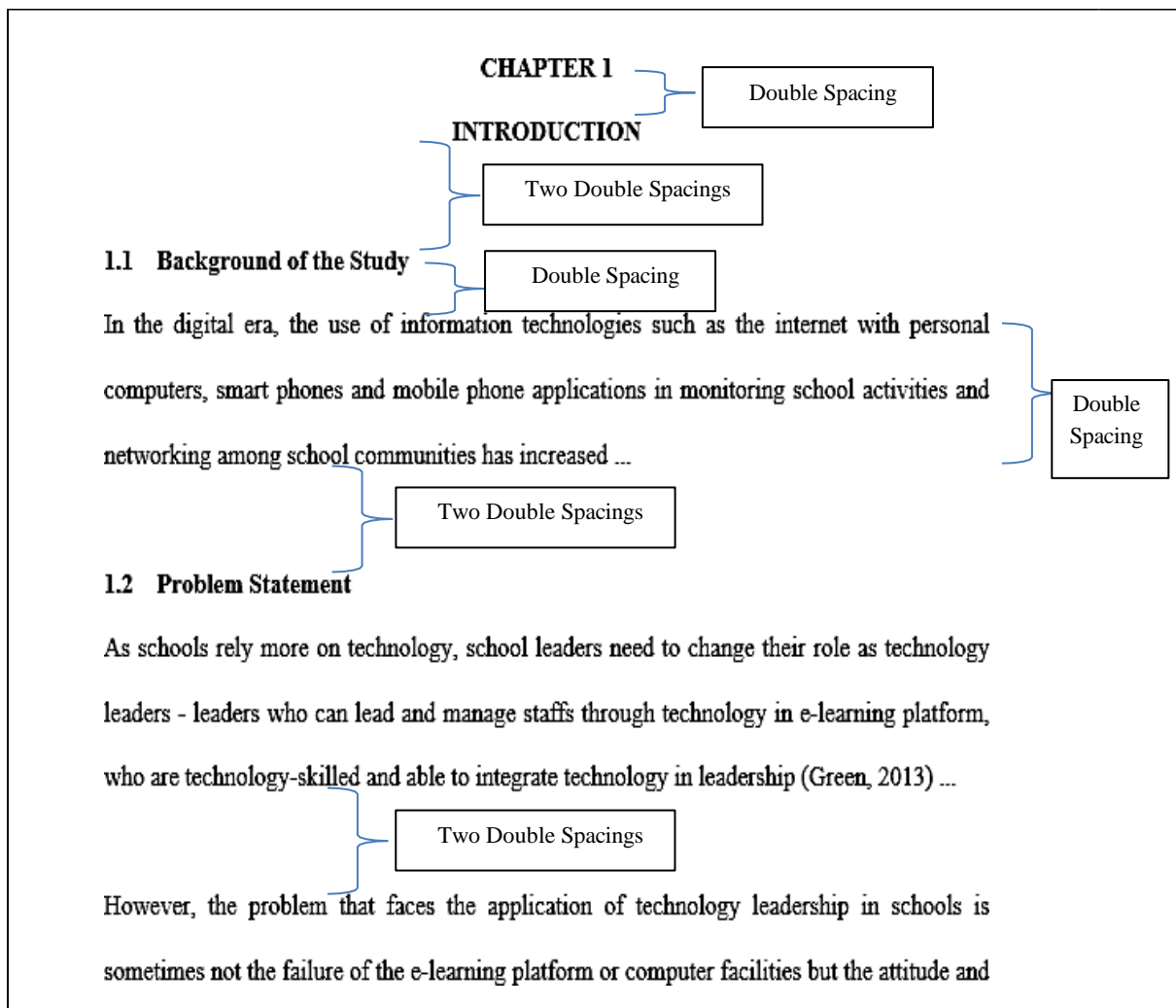
Chapter 4: Findings
In this chapter, the findings must be presented in written text, with relevant tables and figures to answer the research questions. The interpretation of the findings must be presented in a scholarly manner.

Chapter 5: Discussion and Conclusion
In this chapter, the research findings are summarized and discussed. The implications, recommendations, and suggestions for future research and a concise conclusion must be included.

2.2.1 Main Text Layout

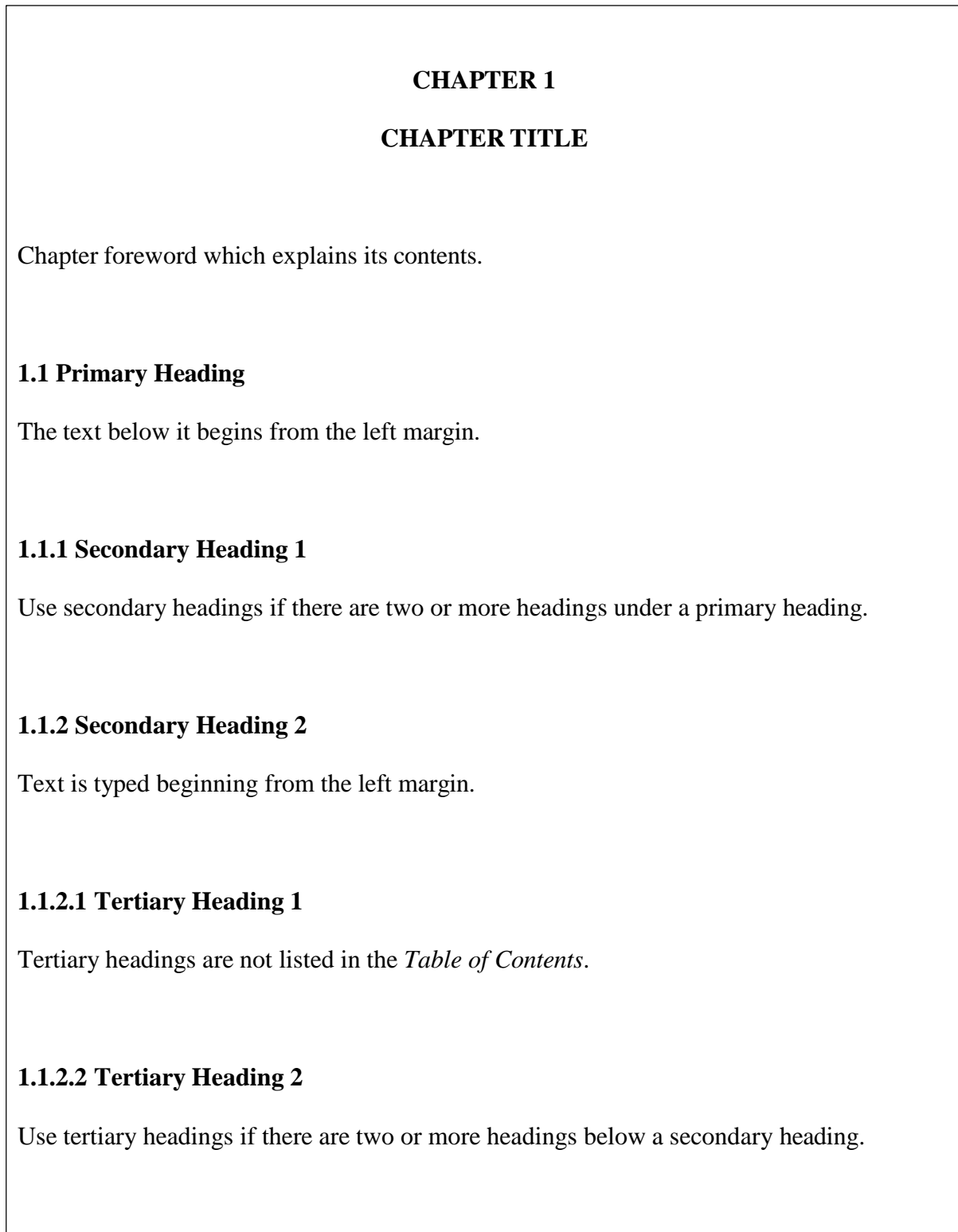An example of main text layout and text spacings is shown in Figure 2.1.

CHAPTER 1

Double Spacing

INTRODUCTION

Two Double Spacings

1.1 Background of the Study

Double Spacing

In the digital era, the use of information technologies such as the internet with personal

computers, smart phones and mobile phone applications in monitoring school activities and

networking among school communities has increased ...

Double Spacing

Two Double Spacings

1.2 Problem Statement

As schools rely more on technology, school leaders need to change their role as technology

leaders - leaders who can lead and manage staffs through technology in e-learning platform,

who are technology-skilled and able to integrate technology in leadership (Green, 2013) ...

Two Double Spacings

However, the problem that faces the application of technology leadership in schools is

sometimes not the failure of the e-learning platform or computer facilities but the attitude and

Figure 2.1: An Example of Main Text Layout (Source: Faculty of Education UM, 2022)

2.2.2　Format for Numbering Headings in Main Text

The format for numbering headings in the main text is shown in Figure 2.2.

<div style="border:1px solid black; padding:1em;">

CHAPTER 1

CHAPTER TITLE

Chapter foreword which explains its contents.

1.1 Primary Heading

The text below it begins from the left margin.

1.1.1 Secondary Heading 1

Use secondary headings if there are two or more headings under a primary heading.

1.1.2 Secondary Heading 2

Text is typed beginning from the left margin.

1.1.2.1 Tertiary Heading 1

Tertiary headings are not listed in the *Table of Contents*.

1.1.2.2 Tertiary Heading 2

Use tertiary headings if there are two or more headings below a secondary heading.

</div>

Figure 2.2: Format for Numbering Headings (Source: Faculty of Education UM, 2022)

2.2.3   Format for Numbering Sub-Headings in Main Text

For sub-headings under each of the above headings, use unbold fonts with numbers (1, 2, 3 …), followed by lower-case alphabets (a, b, c …), and lower-case *Roman Numerals* (i, ii, iii …). An example of sub-headings layout is shown in Figure 2.3.

1.7   Definition of Terms (*a primary heading*)

The followings are the definition of terms for this study.

1. Leadership practices

   a. Transformational leadership practices

     i. Idealised influence

     ii. Inspirational motivation

  b. Transactional leadership practices

2. Motivation

Figure 2.3: Sub-headings Layout (Source: Faculty of Education UM, 2022)

This numbering system provides a clear picture of the relationship between chapters, headings and sub-headings and shows how they are connected.

2.3   References

All works or studies referred to in the research project/dissertation/thesis in the form of quotations or citations must be included in the references.

The references should be written consistently in the American Psychological Association (APA) format or in another format approved by the faculty. Each reference should be written in single spacing format and a double space should be left between references. The list of references must be arranged in alphabetical order and the entries should not be numbered. The list must also have a hanging indentation of 0.5 inch. For example:

Buchwalow, I. B., & Böcker, W. (2010). *Immunohistochemistry: basics and methods.* Berlin: Springer Verlag.

Caamaño-Tubío, R. I., Pérez, J., Ferreiro, S., & Aldegunde, M. (2007). Peripheral serotonin dynamics in the rainbow trout (*Oncorhynchus mykiss*). *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology, 145*(2), 245-255.

Cakir, Y., & Strauch, S. M. (2005). Tricaine (MS-222) is a safe anesthetic compound compared to benzocaine and pentobaritol to induce anesthesia in leopard frogs (*Rana pipiens*). *Pharmacological Reports, 57*, 467-474.

Cameron, A. A., Plenderleith, M. B. & Snow, P. J. (1990). Organization of the spinal cord in four species of elasmobranch fishes: cytoarchitecture and distribution of serotonin and selected neuropeptides. *The Journal of Comparative Neurology, 297*, 201-218

Reference citations in text require the following information:
- last name of the author,
- the year of publication,
- the page number for the reference (direct quotes only).

For summaries or paraphrases, the last name of the author and the year of publication must be included for the in-text reference. For examples:

Kingston and Parker (2012) found the biggest challenges in classroom to be ….

The biggest challenges in classroom were …. (Kingston & Parker, 2012).

For direct quotations (which refers to when the exact words of another author are copied), the last name of the author, the year of publication as well as the page number for the reference must be included for the in-text reference. The quotation has to be enclosed in quotation marks. For examples:

> It was said that "What is taught and how it is to be taught entail teachers' moral judgements and commitments" (Frank & Quiroz, 1997, p. 208).
>
> According to Frank and Quiroz (1997), "What is taught and how it is to be taught entail teachers' moral judgements and commitments" (p. 208).

If the quoted citation contains more than 40 words, it should be placed within a paragraph of its own with a 0.5 inch indentation. For example:

> The general theory of relativity, on its own, cannot explain these features or answer these questions because of its prediction that the universe started off with infinite density at the big bang singularity. At the singularity, general relativity and all other physical laws break down: one couldn't predict what will come out of the singularity. (Hawking, 1988, p. 309)

Please refer to the University of Malaya Library APA Formatting and Style Guide. The guide can be downloaded at [UM Library website](http://www.umlib.um.edu.my) (*http://www.umlib.um.edu.my).*

2.4   Supplementaries

2.4.1   Appendices

This section supports the main written text of the thesis. Appendices consist of research instruments, additional illustration of data sources, raw data and quoted citations which are too long to be placed in the text. The appendix section supports the written text of the research report/dissertation/thesis by including materials that can provide additional information. These materials include research data, tables, examples of questionnaires, maps, photos and other materials that are too long to be included in the text or are not directly required to comprehend the text can be included as appendices.

Tables and graphics that are more than two pages long are suggested to be included in the Appendices section.

Appendices are labelled as Appendix A, Appendix B1, Appendix B2, Appendix C, etc. and they should correspond to the List of Appendices of Preliminary section.

2.4.2   List of Publications and Papers Presented

For undergraduate degree, publication is not a requirement. Any published works as well as papers presented at conferences, seminars, symposiums etc. pertaining to the research topic of the research report are suggested being included in this section. The first page of the article may also be appended.

Publications are labelled as Publication A, Publication B, and so on.

CHAPTER 3
OTHER RELATED GUIDELINES

3.1. Plagiarism

Candidate of the Universiti Malaya are expected to produce original academic work. Plagiarism is defined as an academic fraud arising from the attitude of lying, insincerity, untrustworthiness, dishonesty and disrespect to fellow researchers. Plagiarism happens when someone else's idea is taken without mentioning the source, and thus giving the impression that the idea is his own. This situation may occur when:

1. One's idea, taken word for word from an article or book that has been published.
2. The idea of a person from an article or book is taken using his own words.
3. A person's idea is taken from discussions whether in conferences, seminars, forums, talks or informal discussions between two parties.
4. Data, diagrams, tables, photographs or any other illustrative material derived from others is taken as if it were his own.

Candidates are encouraged to read the guide entitled "How to Avoid Plagiarism: A Handbook for Postgraduate Students", which outlines the rules and regulations pertaining to acts of plagiarism.

3.2. Turnitin

The faculty requires the usage of *Turnitin*, an online web-based plagiarism detection application to avoid plagiarism and ensure academic integrity. The similarity index percentage for a research report should equal to or less than 25%. Candidate should submit a copy of the Turnitin similarity report to your subject coordinator during submission.

CHAPTER 4
SUBMISSION

4.1 Prior to Submission

Candidates are required to obtain approval from the subject coordinator before hardbound submission.

Candidates are strongly advised against copying the formatting done by other candidates as previously submitted research report may not conform to the current formatting requirements. Failure to meet the formatting requirements may result in a research report being rejected at the point of submission.

4.2 Required Documents for Submission

Documents required for submission for the purpose of examination are as follows:
- Softbound or softcopy (adhere to instruction from respective programme subject coordinator);
- Any other documents required by respective programme subject coordinator.

Documents required for final submission prior to graduation after completing the corrections (if any), are as follows:
- At least one (1) printed hardbound copy (or such numbers as may be determined by respective programme subject coordinator;
- One (1) electronic copy (PDF format) (submission method will be determined by respective programme subject coordinator)
- Final Submission of Research Report form;
- Repository Policy for Universiti Malaya Research Report form;
- Correction Report form (if applicable).

All the required forms can be downloaded from the MAYA portal in the following link:
https://umsitsguide.um.edu.my/index.html

REFERENCES

University of Malaya (2017). *Guidelines for the Preparation of Research Report, Dissertations and Theses*. Kuala Lumpur: Universiti Malaya.

Faculty of Education UM (2022). *Guidelines for the Preparation of Research Report, Dissertations and Theses*. Kuala Lumpur: Universiti Malaya.

American Psychological Association. (2020). *Publication Manual of the American Psychological Association* (7th ed.).
https://apastyle.apa.org/style-grammar-guidelines/references/examples

APPENDIX A

Example of Table of Contents

Note: This is just an example. Students are encouraged to discuss with the supervisors on the relevant sub-topics that need to be included in the write up.

TABLE OF CONTENTS

UNIVERSITI
MALAYA