



**UNIVERSITI
MALAYA**

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

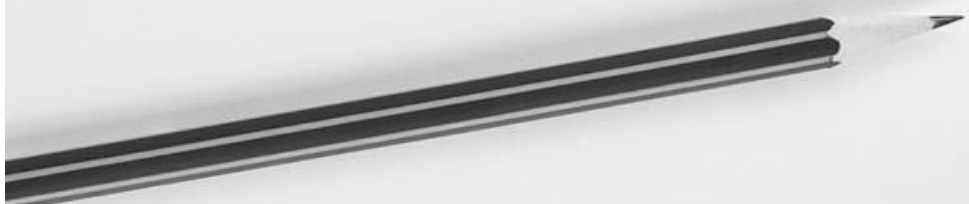


TABLE OF CONTENTS

Preface	1
CHAPTER 1: FORMAT OF WRITING	2
1.1 Conventional Format	2
1.2 Article Style Format	3
1.3 Format of Published Papers	5
CHAPTER 2: SEQUENCE OF CONTENTS	9
2.1 Preliminary	9
2.1.1 Title Page	9
2.1.2 Original Literary Work Declaration Form	11
2.1.3 Abstract	12
2.1.4 Acknowledgements	14
2.1.5 Table of Contents	14
2.1.6 List of Figures	14
2.1.7 List of Tables	14
2.1.8 List of Symbols and Abbreviations	14
2.1.9 List of Appendices	15
2.2 Main Body	15
2.2.1 Introduction	15
2.2.2 Literature Review	15
2.2.3 Methodology	16
2.2.4 Results	16
2.2.5 Discussion	16
2.2.6 Conclusion	16
2.2.7 References	16
2.3 Supplementary	18
2.3.1 List of Publications and Papers Presented	18
2.3.2 Appendices	18
2.3.3 Co-authors Consent	18

CHAPTER 3: FORMAT SPECIFICATIONS	19
3.1 Paper Quality, Printing and Duplicating.....	19
3.2 Typing and Printing Quality.....	19
3.3 Line Spacing.....	19
3.4 Margins	19
3.5 Page Numbering	20
3.6 Numbering of Chapters and Sub-chapters	20
3.7 Footnotes	21
3.8 Tables	22
3.9 Figures	22
3.10 Binding	23
3.11 Word Length	27
3.12 Other Information	28
CHAPTER 4: SUBMISSION	29
4.1 Prior to Submission	29
4.2 Required Documents for Submission	29
CHAPTER 5: PLAGIARISM	31

PREFACE

In the process of completing a postgraduate programme in the University of Malaya and being awarded the degree, a candidate may be required to submit a research project or dissertation or thesis, depending on the requirements of the specific programme.

The terms “research project”, “dissertation” and “thesis” are defined as follows:

- Research project refers to the documentation of the research component prepared and submitted by the candidate for the award of the Master’s programme by coursework.
- Dissertation refers to the documentation of the original research prepared and submitted by the candidate for the award of the degree for the Master’s programme by research, and by mixed mode as well as Doctoral programme by coursework and by clinical coursework.
- Thesis refers to the documentation of the original research prepared and submitted by the candidate for the award of the degree for the Doctoral programme by research, and mixed mode.

In view of this requirement, the Institute of Graduate Studies (IGS), University of Malaya has taken the initiative to provide general guidelines for the submission of research projects, dissertations and theses. These guidelines will assist candidates to meet the minimal format requirements set by the University to complete the final form of a research project, dissertation or thesis. However, the format may differ in each individual faculty, academy, institute or centre with its own additional requirements.

CHAPTER 1: FORMAT OF WRITING

A research project, dissertation or thesis can be written in one of the following formats:

- Conventional format
- Article style format
- Format of published papers (This option is only available for Doctor of Philosophy candidates)

These formats serve as a generic guideline for the postgraduate candidates in writing a research project, dissertation or thesis. Minor variation of the format as recommended by the faculty is allowed. Candidates are advised to discuss with their supervisors to determine which format is best suited for the nature of their research work.

1.1 Conventional Format

The conventional format follows the traditional monograph structure (Table 1.1). This is the most common form of research project/dissertation/thesis used by most candidates.

Table 1.1: The general structure that follows the conventional format

<i>Preliminary</i>
<ul style="list-style-type: none">▪ Title Page▪ Original Literary Work Declaration▪ Abstract▪ <i>Abstrak</i>▪ Acknowledgements▪ Table of Contents▪ List of Figures▪ List of Tables▪ List of Symbols and Abbreviations▪ List of Appendices
<i>Main Body</i>
<ul style="list-style-type: none">▪ Chapter 1: Introduction▪ Chapter 2: Literature Review▪ Chapter 3: Methodology▪ Chapter 4: Results▪ Chapter 5: Discussion▪ Chapter 6: Conclusion▪ References (A consolidated list of references for all chapters)
<i>Supplementary</i>
<ul style="list-style-type: none">▪ List of Publications and Papers Presented▪ Appendix

1.2 Article Style Format

Apart from the conventional style of writing, a research project/dissertation/thesis can also be presented in the chapters that are in the format of journal article (Table 1.2). The number of chapters to be included is at the discretion of the author, depending on the suitability of the chapters in answering the research questions.

The article style format should not be confused with the format for thesis by published papers. Similar to the conventional format, a research project/dissertation/thesis in the article style format should be written extensively to elucidate the different aspects of the research work in great details.

The main body of a research project/dissertation/thesis in the article style format should contain the following chapters:

(a) General Introduction

The General Introduction gives an overview of the research by outlining the objectives, novelty as well as the research questions addressed. This chapter should also explain the correlation among the articles/chapters.

(b) Literature Review

The Literature Review provides extensive background information on past studies and current knowledge pertaining to the research topic.

(c) Article 1, Article 2, Article 3 or more

Each article should address a specific research objective or a related topic of the study. Each article forms a separate chapter and must be written in a cohesive manner with a logical and coordinated progression from one article/chapter to the other. The article/chapter should consist of its own sections on Introduction, brief Literature Review, Methodology, Results, Discussion and Conclusion.

(d) Conclusion and Recommendation

The Conclusion chapter summarizes the findings in all articles and suggests the future direction for research.

The format specifications of the research project/dissertation/thesis must conform to the general research project/dissertation/thesis requirements as outlined in Chapter 2.

Table 1.2: The general structure that follows the article style format

<i>Preliminary</i>
<ul style="list-style-type: none">▪ Title Page▪ Original Literary Work Declaration▪ Abstract▪ <i>Abstrak</i>▪ Acknowledgements▪ Table of Contents▪ List of Figures▪ List of Tables▪ List of Symbols and Abbreviations▪ List of Appendices
<i>Main Body</i>
<ul style="list-style-type: none">▪ Chapter 1: General Introduction▪ Chapter 2: Literature Review▪ Chapter 3: Article 1*<ul style="list-style-type: none">3.1 Introduction3.2 Literature Review3.3 Methodology3.4 Results3.5 Discussion3.6 Conclusion▪ Chapter 4: Article 2*<ul style="list-style-type: none">4.1 Introduction4.2 Literature Review4.3 Methodology4.4 Results4.5 Discussion4.6 Conclusion▪ Chapter 5: Article 3*<ul style="list-style-type: none">5.1 Introduction5.2 Literature Review5.3 Methodology5.4 Results5.5 Discussion5.6 Conclusion▪ Chapter 6: Conclusion▪ References (A consolidated list of references for all chapters)

<p><i>Note:</i> <i>*Article is written with a specific title which normally refers to the research done</i></p>
<i>Supplementary</i>
<ul style="list-style-type: none"> ▪ List of Publications and Papers Presented ▪ Appendices ▪ Co-authors Consent

1.3 Format of Published Papers

UM also permits the presentation of thesis for the programme of Doctor of Philosophy (PhD) in the format of published and/or submitted papers, where such papers have been published or accepted by high impact journals (e.g. journals indexed by Web of Science) during the period of candidature (Table 1.3).

Papers submitted as a PhD thesis must be based on a particular theme or focus and form a cohesive research write up. The quality of a thesis by published papers should be in accordance with PhD-level research. The following aspects should be taken into consideration before opting for this format of writing:

(a) Type of Publications

The thesis may comprise published papers and/or manuscripts accepted for publication by high impact journals (e.g. journals indexed by Web of Science). Publications which have been submitted for other degree conferment purposes are not accepted.

(b) Number of Publications

The minimum number of papers and/or manuscript is at least three (3). However, in some disciplines a larger number of papers is required to meet the expectations of scope and quality in accordance with PhD-level research. The papers should be published or accepted for publication during the period of candidature.

For candidates under the programme of **PhD by Prior Publication**, the minimum number of published works is at least five (5) and these works must be those published within a period not exceeding 10 years prior to the date of submission of thesis.

(c) Authorship

Where the papers have more than one author, the candidate must be the first author of at least two (2) out of three (3) papers.

For candidates under the programme of **PhD by Prior Publication**, the candidate should be the first author of five (5) of the published works submitted.

(d) Co-authors Consent

Candidate must obtain the consent from other co-authors for all papers and/or manuscripts and/or publications used as part of their PhD thesis. The consent can be in the form of a verification from the journal publisher or letter or email communication with the co-authors.

(e) Structure of Thesis

The thesis in the format of published papers shall consist the following:

(i) An **abstract**, which summarises the most important findings presented in each published paper or accepted manuscript. It should indicate how the included works are thematically linked or tied to a particular research framework and how, when considered together, they contribute significantly to knowledge in the discipline.

(ii) The **Introduction** chapter should include the following:

- description of research problem investigated;
- objectives of the study;
- list of publications and/or accepted manuscripts;
- the account of research progress linking the publications.

The account of research progress must link together the various papers submitted as part of the thesis so that the reader can understand the logic behind the progression of the research programme.

(iii) The **Literature Review** chapter must contain, in accordance with discipline norms, a critical review of relevant literature, identify the knowledge gaps and the relationship of the literature to the programme of research.

(iv) The **Methodology** chapter (where applicable).

(v) The core chapter of the thesis consist of the published papers or accepted manuscripts in their **original publication format** and should NOT be retyped or reformatted. They must be presented coherently in the thesis according to the requirement of the University of Malaya (Degree of Doctor of Philosophy) Regulations, including any accompanying declarations. The following must be indicated for any jointly written paper:

- Acknowledgment of co-authors and verification of originality.
- A clear statement of the contribution made by each author in any joint published work. For example, a statement of contribution from a 3-author academic research publication is as follows:

Tang, J.M.Y., Adli, D.S.H., & Belabut, D. (2011). Histological development of selected neural structures of Dark-sided Chorus Frog,

Microhyla heymonsi (Amphibia: Anura). *Malaysian Journal of Science*, 29(1), 11-18.

Tang, J.M.Y. participated in all experiments, coordinated the data analysis and contributed to the writing of the manuscript. Adli, D.S.H. supervised the development of work and edited the manuscript. Belabut, D. gave technical support and conceptual advice, and helped in data interpretation.

- (vi) The **Discussion** chapter explains the cumulative effect of the papers, the significance of the findings and the knowledge claim in the thesis.
- (vii) The **Conclusion** summarizes the findings in all published works and suggests the future direction for research.
- (viii) The **References** chapter lists all works and sources that are cited in the Introduction, Literature Review and Conclusion chapters.

In general, the examination process for theses in the format of published papers is similar to that for conventional theses. However the aspects of thesis being evaluated by the examiners may slightly differ.

Theses which have not achieved sufficient academic merit may be referred for further work within a period of between 6 to 12 months and be submitted for re-examination. In such cases, the candidate may choose to submit the thesis for re-examination in the same format or in the conventional Doctoral thesis format.

Candidates under the programme of **PhD by Prior Publication** are required to refer to the *Guidelines for Prior Publication* for further details.

Table 1.3: The general structure that follows the format of published papers

<i>Preliminary</i>
<ul style="list-style-type: none">▪ Title Page▪ Original Literary Work Declaration▪ Abstract▪ <i>Abstrak</i>▪ Acknowledgements▪ Table of Contents▪ List of Figures▪ List of Tables▪ List of Symbols and Abbreviations▪ List of Appendices
<i>Main Body</i>
<ul style="list-style-type: none">▪ Chapter 1: Introduction▪ Chapter 2: Literature Review▪ Chapter 3: Methodology (<i>where applicable</i>)▪ Chapter 4: *Published Paper 1 *Published Paper 2 *Published Paper 3 and so on <i>*Note: Authors' contributions must be indicated for each published paper</i>▪ Chapter 5: Discussion▪ Chapter 6: Conclusion▪ References (List of references for chapters of Introduction, Literature Review and Conclusion)
<i>Supplementary</i>
<ul style="list-style-type: none">▪ List of Publications and Papers Presented▪ Appendices▪ Co-authors Consent

CHAPTER 2: SEQUENCE OF CONTENTS

The structure of the research project, dissertation or thesis is based on a standard format which contains the three main sections; **Preliminary**, **Main Text** and **Supplementary**.

2.1 Preliminary

This section consists in order of the following:

- Title Page
- Original Literary Work Declaration Form
- Abstract
- Acknowledgements
- Table of Contents
- List of Figures
- List of Tables
- List of Symbols And Abbreviations
- List of Appendices

2.1.1 Title Page

The title page is the first page after the front cover and should include:

- (a) The final research title which has been approved by the faculty;
- (b) Name of candidate according to the registration records;
- (c) A statement according to the mode of programme (Table 2.1);
- (d) The year of submission.

Table 2.1: Statement on Title Page according to mode of programme

Master's Degree		
Research project (by Coursework)	Dissertation (by Mixed mode)	Dissertation (by Research)
RESEARCH PROJECT SUBMITTED TO THE (name of the Faculty) UNIVERSITY OF MALAYA, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF (Name of Programme)	DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF (Name of Programme)	DISSERTATION SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF (Name of Programme)
Doctoral Degree		
Dissertation (by Coursework or by Clinical Coursework)	Thesis (by Mixed mode)	Thesis (by Research)
DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF (Name of Programme)	THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF (Name of Programme)	THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF (Name of Programme)

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**.

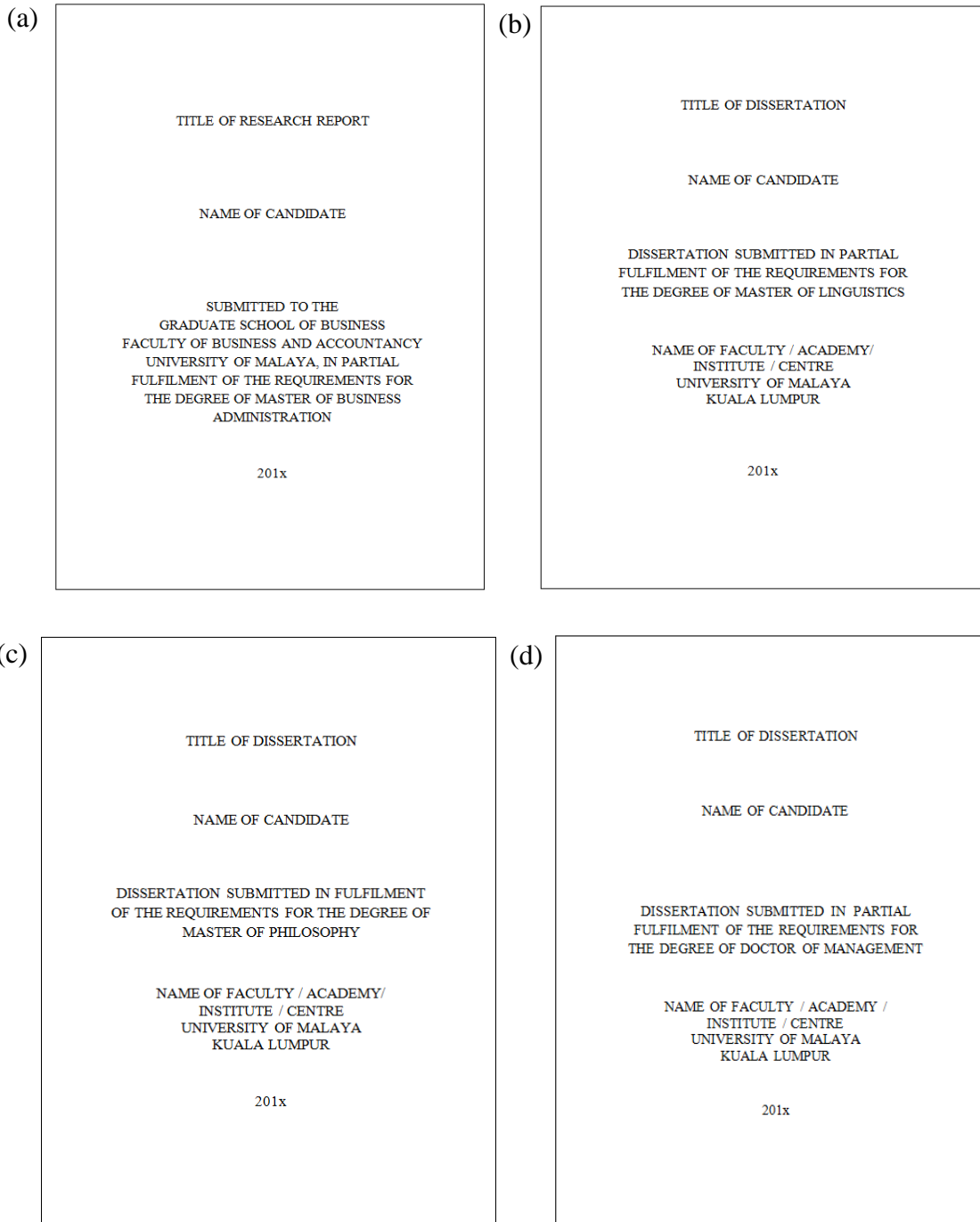


Figure 2.1, continued

(a) Master’s research project by coursework, (b) Master’s dissertation by Mixed mode, (c) Master’s dissertation by research, (d) Doctoral dissertation by coursework, (e) Doctoral thesis by Mixed mode, and (f) Doctoral thesis by research.

(e)

TITLE OF THESIS

NAME OF CANDIDATE

THESIS SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY/ PUBLIC HEALTH

NAME OF FACULTY / ACADEMY /
INSTITUTE / CENTRE
UNIVERSITY OF MALAYA
KUALA LUMPUR

201x

(f)

TITLE OF THESIS

NAME OF CANDIDATE

THESIS SUBMITTED IN FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF DOCTOR
OF PHILOSOPHY/MEDICINE

NAME OF FACULTY / ACADEMY /
INSTITUTE / CENTRE
UNIVERSITY OF MALAYA
KUALA LUMPUR

201x

Figure 2.1: Examples of title page.

2.1.2 Original Literary Work Declaration

This form must be completed by the candidate and signed by a witness (Supervisors or Head of Department/Deputy Dean of Higher Degree). The original signed form must be included in all copies of the research project/dissertation/thesis. The form can be downloaded from the IGS website in two (2) languages (English language and Bahasa Malaysia). If the research project/dissertation/thesis is written in English, hence the English version of the form is used and vice versa.

(a)

UNIVERSITI MALAYA
ORIGINAL LITERARY WORK DECLARATION

Name of Candidate: (I.C./Passport No:)

Registration/Matric No:

Name of Degree:

Title of Project Paper/Research Report/Dissertation/Thesis ("this Work"):

Field of Study:

I do solemnly and sincerely declare that

- (1) I am the sole author/writer of this Work;
- (2) This Work is original;
- (3) Any use of any work in which copyright exists was done by way of fair dealing and for permitted purposes and any excerpt or extract from, or reference to or reproduction of any copyright work has been disclosed expressly and sufficiently and the title of the Work and its authorship have been acknowledged in this Work;
- (4) I do not have any actual knowledge nor do I ought reasonably to know that the making of this work constitutes an infringement of any copyright work;
- (5) I hereby assign all and every rights in the copyright to this Work to the University of Malaysia ("UM"), who henceforth shall be owner of the copyright in this Work and that any reproduction or use in any form or by any means whatsoever is prohibited without the written consent of UM having been first had and obtained;
- (6) I am fully aware that if in the course of making this Work I have infringed any copyright whether intentionally or otherwise, I may be subject to legal action or any other action as may be determined by UM.

Candidate's Signature _____ Date _____

Subscribed and solemnly declared before,

Witness's Signature _____ Date _____

Name:
Designation:

(b)

UNIVERSITI MALAYA
PERAKUAN KEASLIAN PENULISAN

Nama: (No. K.P/Pasport:)

No. Pendaftaran/Matrik:

Nama Ijazah:

Tajuk Kertas Projek/Laporan Penyelidikan/Disertasi/Tesis ("Hasil Kerja ini"):

Bidang Penyelidikan:

Saya dengan sesungguhnya dan sebenarnya mengaku bahawa:

- (1) Saya adalah satu-satunya pengarang/penulis Hasil Kerja ini;
- (2) Hasil Kerja ini adalah asli;
- (3) Apa-apa penggunaan mana-mana hasil kerja yang mengandungi hakcipta telah dilakukan secara urusan yang wajar dan bagi maksud yang dibenarkan dan apa-apa petikan, ekstrak, nujukan atau pengeluaran semula daripada atau kepada mana-mana hasil kerja yang mengandungi hakcipta telah dinyatakan dengan sejelasnya dan secukupnya dan satu pengiktirafan tajuk hasil kerja tersebut dan pengarang/penulisnya telah dilakukan di dalam Hasil Kerja ini;
- (4) Saya tidak mempunyai apa-apa pengetahuan sebenar atau patut semunasabahnya tahu bahawa penghasilan Hasil Kerja ini melanggar suatu hakcipta hasil kerja yang lain;
- (5) Saya dengan ini menyerahkan kesemua dan tiap-tiap hak yang terkandung di dalam hakcipta Hasil Kerja ini kepada Universiti Malaysia ("UM") yang seterusnya mula dari sekarang adalah tuan punya kepada hakcipta di dalam Hasil Kerja ini dan apa-apa pengeluaran semula atau penggunaan dalam apa jua bentuk atau dengan apa jua cara sekalipun adalah dilarang tanpa terlebih dahulu mendapat kebenaran bertulis dari UM;
- (6) Saya sedar sepenuhnya sekiranya dalam masa penghasilan Hasil Kerja ini saya telah melanggar suatu hakcipta hasil kerja yang lain sama ada dengan niat atau sebaliknya, saya boleh dikenakan tindakan undang-undang atau apa-apa tindakan lain sebagaimana yang diputuskan oleh UM.

Tandatangan Calon _____ Tarikh _____

Diperbuat dan sesungguhnya diakui di hadapan,

Tandatangan Saksi _____ Tarikh _____

Nama:
Jawatan:

Figure 2.2: Original Literary Work Declaration
(a) English, (b) Bahasa Malaysia

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.

The Abstract page begins with the title of research project/dissertation/thesis (in uppercase) that is approved by the faculty after the submission of 3 Months' Notice. Candidates are not allowed to change the title without the approval of the faculty.

An abstract must not exceed 500 words, typed in a single paragraph with double-spacing, and written in Bahasa Malaysia and English language. A maximum of five (5) keywords should also be listed below the abstract (Figure 2.3).

Where the language of the thesis is other than Bahasa Malaysia or English, an abstract in that language must also be included. The sequence of abstracts is as follows:

- For research project/dissertation/thesis written in Bahasa Malaysia, the abstract in Bahasa Malaysia is followed by the English version.
- For research project/dissertation/thesis written in English, the abstract in English is followed by the Bahasa Malaysia version.
- For research project/dissertation/thesis written in Arabic, the abstract in Arabic is followed by its version in Bahasa Malaysia and English.

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

[TITLE OF RESEARCH PROJECT/DISSERTATION/THESIS]

ABSTRACT

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla efficitur risus ac magna malesuada venenatis. Etiam a faucibus metus, at consequat leo. Sed pulvinar suscipit massa, sit amet pulvinar ligula accumsan sed. Nam sed leo mollis, feugiat felis in, porta nunc. Maecenas at erat eu augue tristique vestibulum. Donec ac lobortis nunc. Aliquam laoreet dolor a massa hendrerit, ac bibendum neque semper. Aliquam id nisi magna. Aliquam ligula orci, congue id dapibus at, luctus in magna. Maecenas non nulla ac tortor tristique laoreet. Donec porta neque semper imperdiet pulvinar. Phasellus egestas viverra ornare. Fusce nisi ex, pharetra eu gravida vel, iaculis quisquam. Mauris placerat sapien sapien, ac mollis eros imperdiet vel. Morbi nulla ipsum, commodo sed ex eu, pharetra maximus massa. In et placerat elit. Aliquam porta sem sit amet justo pellentesque consectetur. Quisque aliquet leo nunc, sed porttitor quam ullamcorper at. Suspendisse nunc lorem, tempus a feugiat ac, facilisis eu nisi. Donec feugiat vulputate turpis, at tincidunt ex posuere at. Sed semper ante vitae tincidunt malesuada. Praesent commodo diam non tortor laoreet, ac volutpat dui scelerisque. Maecenas elementum rhoncus placerat. Aliquam mollis vel diam ut imperdiet. Donec in venenatis arcu. Nam pulvinar eros nunc, vel malesuada turpis vestibulum eget. Aliquam erat volutpat. Vivamus ut euismod augue. Nam semper risus nec nibh posuere tincidunt. Pellentesque id imperdiet enim, vitae viverra lectus.

Keywords: proin fringilla, turpis metus, vitae, tincidunt

iii

Figure 2.3: Example of abstract.

2.1.4 Acknowledgements

Most research projects, dissertations or theses 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 is optional and 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, topics and sub-topics together with their page numbers. Sub-topics and topics should be labelled according to the chapter, for example:

CHAPTER 1: TITLE

1.1 Topic 1

1.1.1 Sub-topic 1

CHAPTER 2: TITLE

2.1 Topic 1

2.1.1 Sub-topic 1

This numbering system provides a clear picture of the relationship between chapters and topics and shows how they are connected.

2.1.6 List of Figures

This list contains the titles of figures, together with their page numbers, which are found throughout the text. For example, figures in Chapter 1 are numbered sequentially: Figure 1.1, Figure 1.2 and so on.

2.1.7 List of Tables

This list contains the titles of tables, together with their page numbers, which are listed in the text. The numbering system is according to chapter, for e.g.: tables in Chapter 1 are numbered sequentially: Table 1.1, Table 1.2 and so on.

2.1.8 List of Symbols and Abbreviations

The symbols, abbreviations, nomenclature and terminology that are used in the text must be listed down accordingly.

For further information on spelling and abbreviations, candidates are advised to refer to the latest edition of the Oxford Advanced Learner's Dictionary published by Oxford University Press.

2.1.9 List of Appendices

This list is optional and contains the titles of appendices placed in the supplementary section

2.2 Main Body

Candidates and supervisors should ensure that the text follows the agreed conventions of the individual faculty. The main text in the research project/dissertation/thesis must be organised following the guidelines as mentioned below:

- Text must be organised in titled chapters.
- The titles must reflect the content of the chapter.
- Every chapter must begin on a new page.
- Chapters can be divided into sub-chapters with corresponding sub-titles.
- Titles and sub-titles must be numbered.

There is no restriction on the total number of chapters in a research project/dissertation/thesis. The number of chapters differs according to the field of study conducted by the candidate whether it is science-based or social science-based. However the content of the chapters may differ according to the candidate's research or conventions of individual faculty.

Generally, a research project/dissertation/thesis will have the following basic structure:

- **INTRODUCTION**
- **LITERATURE REVIEW**
- **METHODOLOGY**
- **RESULTS**
- **DISCUSSION**
- **CONCLUSION**
- **REFERENCES**

Items in the structure are divided into separate chapters and the descriptions of these chapters are as follows:

2.2.1 Introduction

This chapter contains the introduction to the issues in which the research is concerned with, the aims and objectives of the study, and the scope or outline of the research approach as well as the structure of the research project/dissertation/thesis.

2.2.2 Literature Review

A literature review is a description of the literature relevant to a particular field or topic of study. It consists of a critically written and comprehensive account of the published works on a topic by accredited scholars and researchers. A critical literature review is a critical assessment of the relevant literature. It is directly related to the research, providing information on theories, models, materials and techniques used in

the research. The literature review should be comprehensive and include recent publications which are relevant to the research.

2.2.3 Methodology

This chapter describes and explains the materials as well as the research methodology used in the study. The sub-topics for this chapter include the key research questions, the research design, and the research procedures adopted. It may also, where appropriate, indicate sampling methods, research instruments and statistical methods employed. The purpose of this is to inform the reader on the methods used to collect the data and generate the findings reported.

2.2.4 Results

This chapter explains the results which are commonly presented in the form of text, figures and tables, complete with data analysis.

2.2.5 Discussion

This chapter contains the interpretation of the results. The findings of the research should be compared and contrasted with those of previous studies presented in the literature review. The purpose of this chapter is to discuss the findings and the outcomes of the research in relation to the results that have been obtained.

2.2.6 Conclusion

In this chapter, the findings are summarized and their implications discussed. This section may include suggestions for future work.

2.2.7 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>).

2.3 Supplementary

Specific items which were not included in the main body of the text, should be put in this Supplementary section. Typically, this section includes the following:

2.3.1 List of Publications and Papers Presented

Published works as well as papers presented at conferences, seminars, symposiums etc. pertaining to the research topic of the research project/dissertation/thesis are suggested be included in this section. The first page of the article may also be appended as reference.

2.3.2 Appendices

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 project/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 Appendix section.

Appendices are labelled as APPENDIX A, APPENDIX B, etc. and they should correspond to the List of Appendices of Preliminary section.

2.3.3 Co-authors Consent

Please refer to 1.3 (d).

CHAPTER 3: FORMAT SPECIFICATIONS

3.1 Paper Quality, Printing and Duplicating

The research project/dissertation/thesis should be printed, single-sided, on high quality white A4 paper (201 × 297 mm; 80 grams). Computer pin-feed printout paper is not permitted.

The research project/dissertation/thesis, in soft- and hardcover copies, must be typed and duplicated by offset printing or good quality photocopying. All copies must be clean and neat in order to ensure easy reading.

3.2 Typing and Printing Quality

Texts in research project/dissertation/thesis should be typed on **one side** of the paper only.

They must be typed using font type **Times New Roman, font size 12** (except for tables and figures) and justified, using Microsoft Word version 6.0 or later, or similar word-processing software. Those written in Arabic should use font type **Traditional Arabic in font size 16**. Words in a language that is different from the language of the research project/dissertation/thesis must be typed in *italics*. For mathematical texts, the use of Equation Editor or LaTeX is advisable. Script fonts are not permitted.

Chapter titles should be typed with capital letters and centred between the left and right margins. Each chapter must begin on a new page. Chapters and subchapters should be also titled. Titles should be typed in bold without underline.

A high quality laser or ink-jet printer should be used for the printing.

3.3 Line Spacing

The body of the text should be typed with **double spacing**. Single-spacing is only permitted in tables, long quotations, footnotes, citation and in the references.

The first sentence of a new paragraph should not start at the bottom of a page if the space available can only fit one line.

3.4 Margins

The text should have the following margins:

- Top : 2.0 cm or 0.79 inch
- Right : 2.0 cm or 0.79 inch
- Left : 4.0 cm or 1.57 inch
- Bottom : 2.0 cm or 0.79 inch

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.

3.5 Page Numbering

All page numbers should be printed 1.0 cm from the bottom edge of the page and placed at the right-hand side without any punctuation (Figure 3.1).

The page numbering system must conform to the following rules:

- The page numbers should be placed at the right hand side without any punctuation.
- Font type Times New Roman and font size 10 recommended for numbers.
- Roman numerals (i, ii, iii, ...) should be used in the Preliminary section. The first page of the thesis, the title page, is an unnumbered page 'i'. Numbering begins on the second page with 'ii' for the Original Literary Work Declaration Form.
- Arabic numerals (1, 2, 3, ...) are used on the pages of the text (starting with the Introduction page) and Supplementary section.

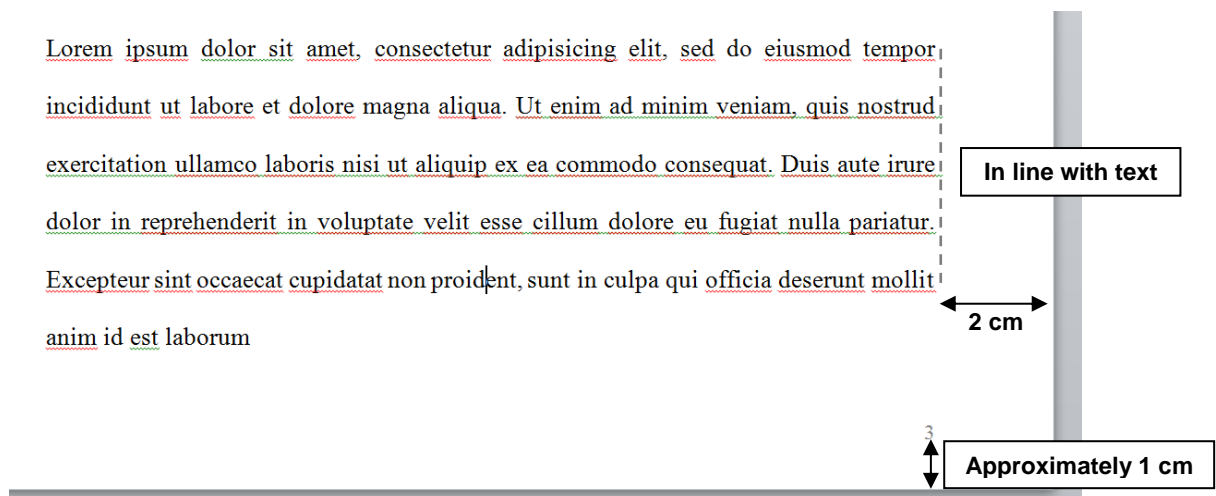


Figure 3.1: Placement of page number

3.6 Numbering of Chapters and Sub-chapters

Chapters and sub-chapters must be numbered using Arabic numerals (1, 2, 3 etc). Chapters are numbered CHAPTER 1, CHAPTER 2, CHAPTER 3, and so on. Sub-chapters are nested, but its numbering is not indented, up to a maximum of 4 levels as in the example shown below:

- CHAPTER 2: FIRST LEVEL (CHAPTER TITLE)**
- 2.1 Level 2 (sub-title);**
- 2.1.1 Level 3 (sub-sub-title);**
- 2.1.1.1 Level 4 (sub-sub-sub-title)**

The use of letters in parenthesis in the main body for e.g., (a), (b), (c) is appropriate as a means of differentiating sub-topics of the same topic. However, it is not required to be listed in the Table of Content.

If a chapter title or chapter sub-title at any level exceeds a single line, the spacing between the lines must be the same as that of the text (double-spacing). Subsequent sub-chapters beyond the fourth nesting level must be numbered using alphabets; (a), (b), (c), and so on.

3.7 Footnotes

There are differences in the use of footnotes in various disciplines. For example, footnotes are commonly used in Social Sciences but rarely in Science and Technology. However candidates are advised to limit the use of footnotes unless they are proved necessary to the document. 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 either at the bottom of the page as footnotes or at the end of the thesis as endnotes in a notes section. The advantage of using notes 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 (Figure 3.2). Please refer to the faculty for the recommended convention for writing of footnotes.

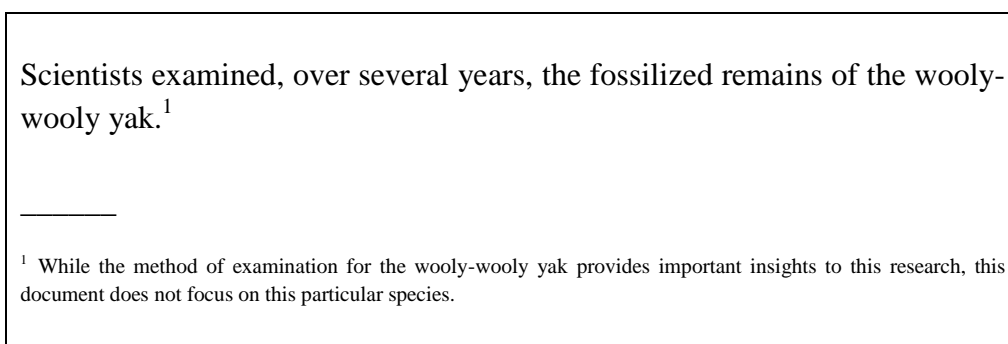


Figure 3.2: Example of footnote

3.8 Tables

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, tables in Chapter 3 are numbered sequentially: Table 3.1, Table 3.2 and so on.

The caption should be placed **above** the table itself (Table 3.1). If the table contains a citation, the source of the reference should be included in the table caption.

Table 3.1: Example of table

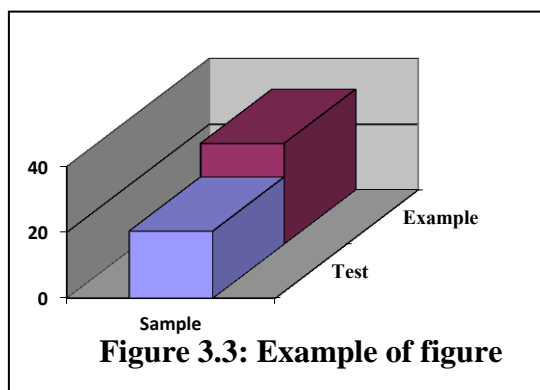
Heading	Heading
Text	Text

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 3.7, continued’. The header row should also be repeated.

3.9 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 3.1, Figure 3.2.

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 3.3).



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 3.7, continued’.

If the figure contains a citation, the source of the reference should be placed after the label.

3.10 Binding

Each copy of the research project/dissertation/thesis submitted shall be bound in one (1) volume. The thesis cover must be of A4 size (210mm x 297mm).

For the purpose of examination, research project/dissertation/thesis submitted should be **soft cover** bound in rexine with the following colour (Figure 3.4):

- Research project: Navy blue
- Dissertation: Dark red or maroon
- Thesis: Dark red or maroon

For final submission prior to graduation, research project/dissertation/thesis submitted should be **hard cover** bound in rexine with the following colour (Figure 3.5):

- Research project: Navy blue
- Dissertation: Dark red or maroon
- Thesis: Dark red or maroon

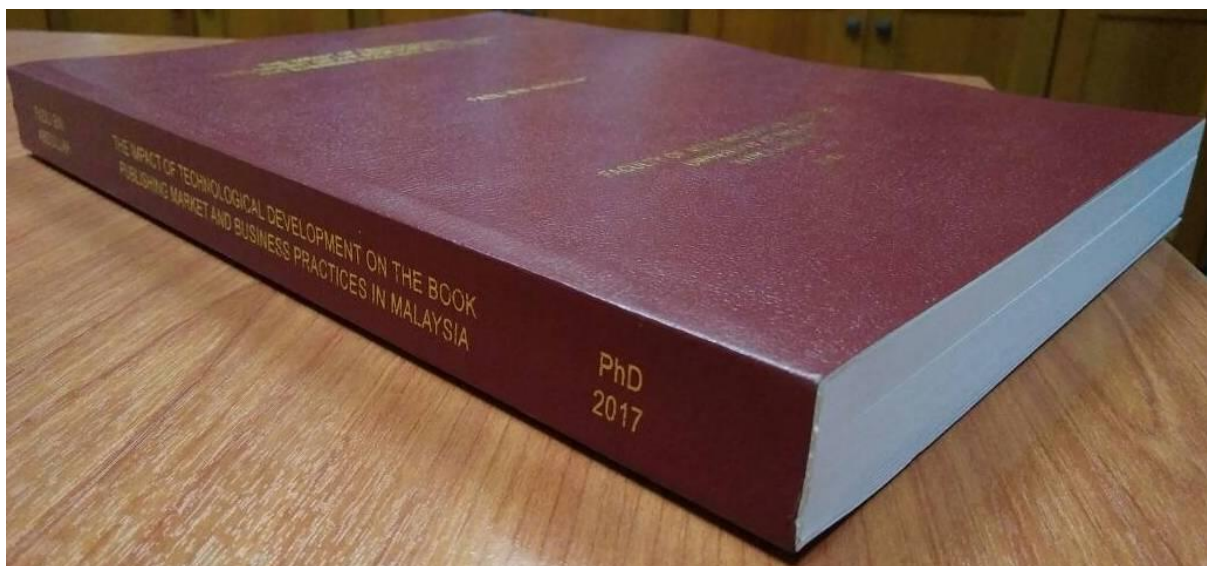
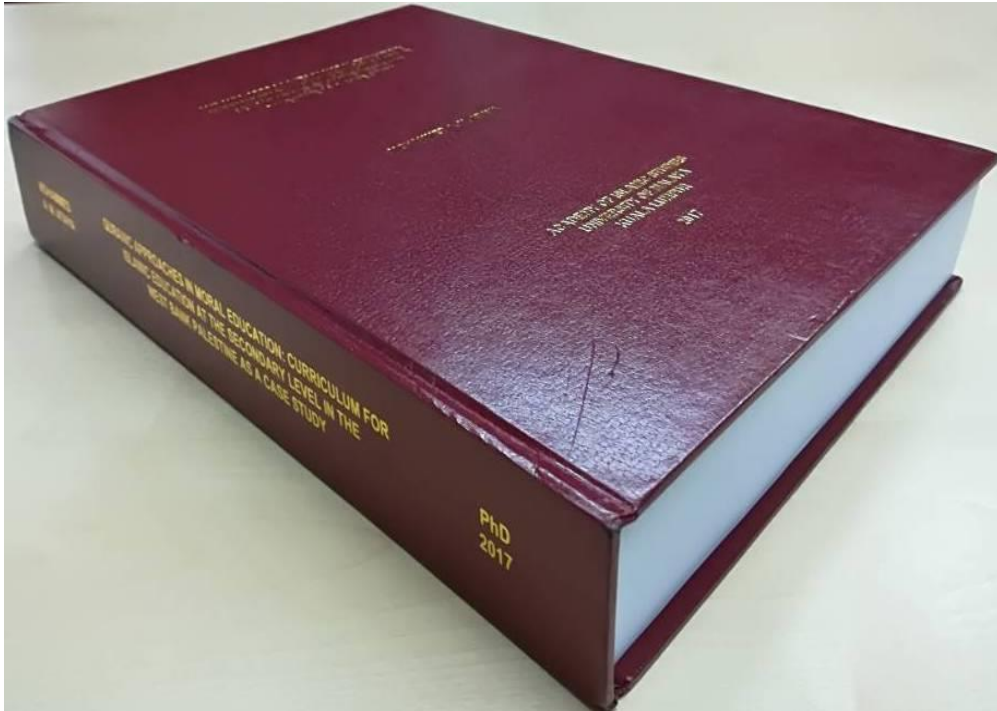


Figure 3.4: Sample of softbound copy for first submission for examination)

(a)



(b)

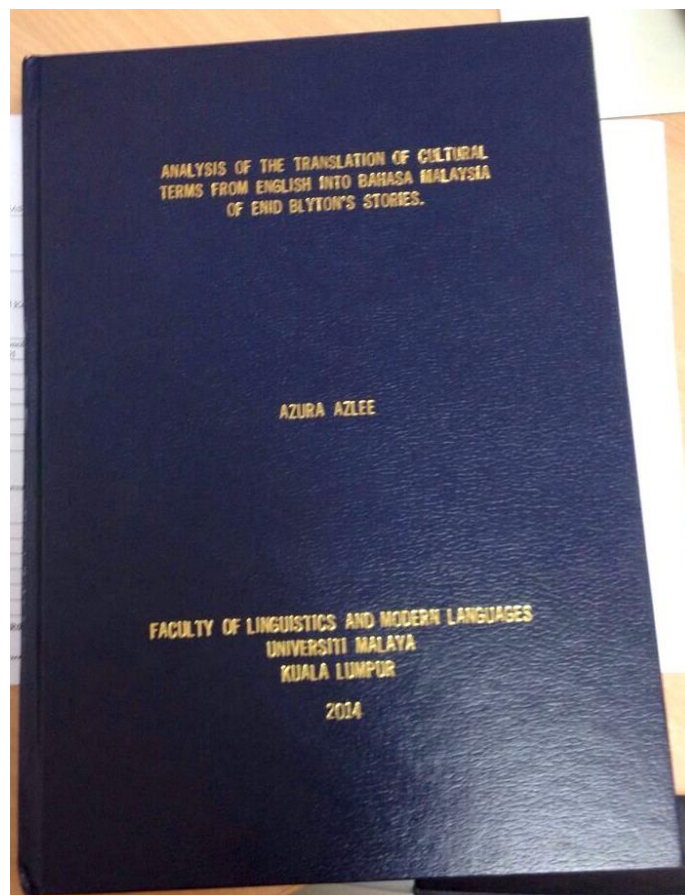


Figure 3.5: Samples of hardbound copy for final submission

(a) Example of hardbound thesis or dissertation (in dark red or maroon);

(b) Example of hardbound research project (in navy blue)

The title of research project/dissertation/thesis, name of author, name of the university and year of submission must be printed on the front cover. The letters for the Front Cover should be printed in **gold letterings of font size 16, font type Arial Narrow, bold and in uppercase letters** (Figure 3.6 and 3.7).

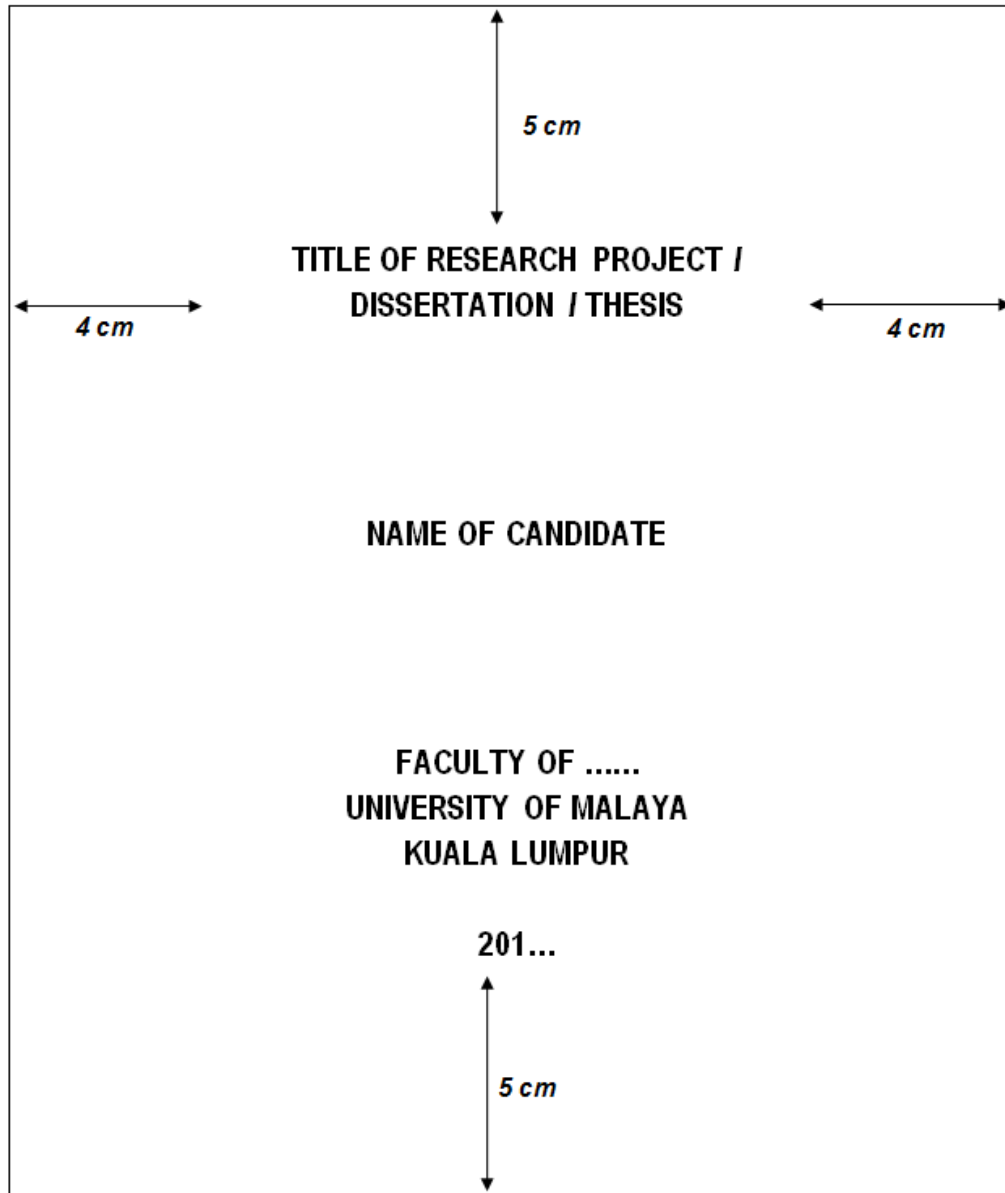


Figure 3.6: Formatting of the front cover of research project/dissertation/thesis

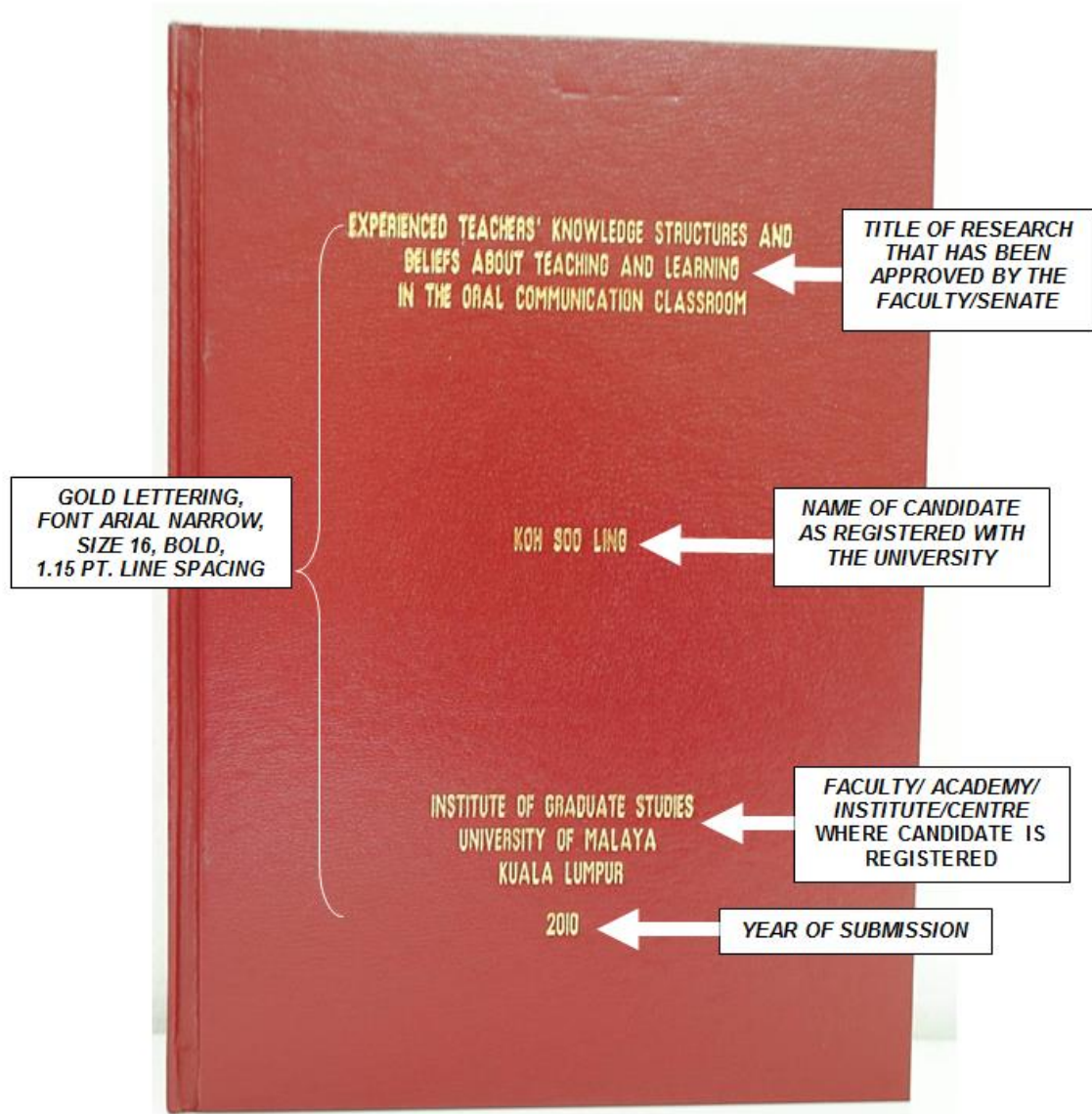


Figure 3.7: Example of the front cover of research project/dissertation/thesis

The spine of the manuscripts should show the title of research project/dissertation/thesis, name of author, year of submission and name of degree. The year of submission must be in accordance with the year when the research project/dissertation/thesis is submitted (Figure 3.8 and 3.9). If the title of the research project/dissertation/thesis exceeds the space of the spine, a smaller font size can be used (i.e. font size 16 to 14) or alternatively the title can be truncated with ellipses (...) (Figure 3.10).

AMIR GHORBANI	PRIVATIZATION IN ALGERIA: POLICY AND PERFORMANCE	PhD 2017
----------------------	---	---------------------

Figure 3.8: Spine format



Figure 3.9: Example of spine format

KWONG SIU YEE	THE EFFECT OF GEOGRAPHICAL REGION ON THE TRANSITION TIME OF CMMI-BASED ...	PhD 2017
----------------------	---	---------------------

Figure 3.10: Spine format for long title

3.11 Word Length

The minimum and maximum word length for a submission for examination is shown in Table 3.2.

Table 3.2: Word length

Master's Programme		
Research project (by Coursework)	Dissertation (by Mixed mode)	Dissertation (by Research)
30,000 words (min/max)	30,000 words (min) 40,000 words (max)	40,000 words (min) 60,000 words (max)
Doctoral Programme		
Dissertation (by Coursework or by Clinical Coursework)	Thesis (by Mixed mode)	Thesis (by Research)
60,000 words (min/max)	80,000 words (min/max)	60,000 words (min) 100,000 words (max)

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

Candidates who are unable to meet the word length set by the University must seek approval from the faculty before the submission of research project/dissertation/thesis for examination.

3.12 Other Information

A candidate may not resubmit previous research work which he or she has submitted to this or any other University for the award of a degree. The candidate may, however, incorporate any part of such work, provided that there is a clear indication in the research project/dissertation/thesis of its sources.

The candidate may also include any other printed or published work by an individual or a working group to validate his or her findings. Where the contribution is from a working group, the candidate is required to provide a statement indicating which part of the work was carried out by the candidate. The statement should be signed by the rest of the group indicating their consent (this may be included in the Appendix).

Approved research projects/dissertations/theses or parts of their content are allowed for publication if they are accompanied by a statement that the work was conducted towards the fulfilment of a particular degree.

All research mode candidates are required to publish papers in Web of Science (WoS) or category A or B refereed journals based on the work during the course of study, and due reference must be made to the University in all such papers.

CHAPTER 4: SUBMISSION

4.1 Prior to Submission

Postgraduate candidates are required to submit the **3 Months' Notice** via MyUM Student Portal at least three (3) months before the actual date of submission. This is to allow timely nomination of examiners and title approval of research project/dissertation/thesis. Details on 3 Months' Notice submission is available on the IGS website (<http://ips.um.edu.my> > *Students* > *Current Students* > *Examination of Thesis/Dissertation*).

Submission of research project/dissertation/thesis for examination has to be done within the candidature period after title approval by the faculty.

Prior to binding and submission, it is recommended for candidates to get the format of their final drafts checked by providing a printed copy to the Thesis Unit, IGS. Also, candidates are strongly advised against copying the formatting done by other candidates as previously submitted research project/dissertation/thesis may not conform to the current formatting requirements. Failure to meet the formatting requirements may result in a thesis/dissertation being rejected at the point of submission.

Once ready, Master's candidates shall submit their research projects/dissertations to the Postgraduate Officer of the respective faculty whereas Doctoral candidates submit their theses to the Thesis Unit, IGS.

4.2 Required Documents for Submission

Documents required for submission for the purpose of examination are as follows:

- at least five (5) printed softbound copies (or such numbers as may be determined by the faculty) of the research project/dissertation/thesis;
- one (1) electronic copy (PDF format); and
- Submission of Research Project/Dissertation/Thesis for Examination/Re-examination form.

Documents required for final submission prior to graduation after completing the corrections (if any), are as follows:

- at least two (2) printed hardbound copies (or such numbers as may be determined by the faculty) of the final research project/dissertation/thesis;
- one (1) electronic copy (PDF format);
- Final Submission for Research Project/Dissertation/Thesis form;
- Repository form; and
- Correction Report form (if applicable).

All the required forms can be downloaded from the IGS website (<http://ips.um.edu.my>) under Current Students.

The submitted electronic copy of the research project/dissertation/thesis (in PDF format) in a compact disc (CD) or USB flash drive must be labeled with the following details (Figure 4.1):

- Name
- Matric no.
- Title of research project/dissertation/thesis
- Faculty/Academy/Institute/Centre
- Year of submission (current year)



Figure 4.1: Printed label format (inside the CD sleeve or case)

CHAPTER 5: PLAGIARISM

Postgraduate candidate of the University of Malaya are expected to produce original academic work. Plagiarism is defined as the use of original work, ideas or actual texts created by others, without acknowledging the original source. Hence, failure to acknowledge the work of others in their work means the candidate is guilty of plagiarism and may be subjected to disciplinary action under the University of Malaya (Discipline of Students) Rules 1999.

Postgraduate candidates are strongly advised to read the “How to Avoid Plagiarism: A Handbook for Postgraduate Students”, which outlines the rules and regulations pertaining to acts of plagiarism.

The University also highly recommends the usage of Turnitin, an online web-based plagiarism detection application to avoid plagiarism and ensure academic integrity. In most cases, the similarity index percentage should not be more than **10% to 25%**. Please refer to your respective faculty regarding the acceptable similarity index percentage.