



POSTGRADUATE STUDENT'S GUIDE

THESIS PREPARATION

**SCHOOL OF GRADUATE STUDIES
UNIVERSITI PUTRA MALAYSIA**

Ensuring quality in postgraduate education



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TABLE OF CONTENTS

	Page
PREFACE	1
CHAPTER	
1	GENERAL REQUIREMENTS
1.1	Introduction
1.2	Language
1.3	Technical specifications
1.3.1	Thesis Title
1.3.2	Number of Pages
1.3.3	Page Layout
1.3.4	Type of Paper
1.3.5	Typeface and Font Size
1.3.6	Margins
1.3.7	Spacing
1.3.8	Pagination
1.3.9	Binding
1.4	Submission
2	THESIS FORMAT
2.1	Title Page
2.2	Copyright Page
2.3	Abstract
2.4	Acknowledgements
2.5	Approval Sheets
2.6	Declaration Form
2.7	Table of Contents
2.8	List of Tables
2.9	List of Figures
2.10	List of Abbreviations/ Notations/ Glossary of Terms
2.11	Body
2.11.1	Chapter Layout
2.11.2	Tables
2.11.3	Figures
2.11.4	Equations
2.11.5	Footnotes
2.11.6	Citations
2.11.7	Headers and Footers

2.12	References/Bibliography	14
2.13	Appendices	15
2.14	Biodata of the Student	15
2.15	List of Publications	15
3	ALTERNATIVE THESIS FORMAT	16
3.1	Thesis Layout	16
3.2	Organisation of Research Chapters	16
4	WRITING CONVENTIONS	18
4.1	Units of Measure	18
4.2	Numbers	18
4.3	Names of Organisms	18
4.4	Elliptical Marks	19
4.5	Use of Square Brackets []	19
4.6	Use of a Symbol to Show Percentage	20
4.7	Policy on Direct Quotations	20
4.8	Format for Quotations	20
4.8.1	Direct Quotations	20
4.8.2	Indirect Quotations	21
5	PLAGIARISM	22
6	USE OF AN EDITORIAL SERVICE	24
	APPENDICES	25
A	Example of the Spine and Cover of a Thesis	26
B1	Title Page	27
B2	Guidelines for Determining a Suitable Title for a Thesis	28
B3	Copyright Page	29
C1	Format of Abstract	30
C2	Format of Abstract for a Thesis Written in Bahasa Melayu	31
D1	Approval Sheet 1	32
D2	Approval Sheet 2	33
D3	Approval Sheet 1 for a Thesis Written in Bahasa Melayu	34
D4	Approval Sheet 2 for a Thesis Written in Bahasa Melayu	35
E1	Declaration Form	36
E2	Declaration Form for a Thesis Written in Bahasa Melayu	38
F1	Table of Contents (Layout Style 1): Main headings and subheadings are not numbered	40

F2	Table of Contents (Layout Style 1): Main headings and subheadings are numbered	42
F3	Table of Contents (Layout Style 2): Main headings and subheadings are not numbered)	44
F4	Table of Contents (Layout Style 2): Main headings and subheadings are numbered)	46
F5a	Table of Contents for Alternative Thesis Format (Main headings and subheadings are not numbered)	48
F5b	Table of Contents for Alternative Thesis Format (Main headings and subheadings are numbered)	50
G1	Layout of a Chapter (Main headings and subheadings are not numbered)	52
G2	Layout of a Chapter (Main headings and subheadings are numbered)	53
H1	Sample of a Table (without vertical lines)	54
H2	Sample of a Table (with vertical lines)	55
I	Samples of Figures	56
J1	Examples of Reference Format	58
J2	Samples of Commonly Used Reference Formats	61
RECOMMENDED READING LIST		67

PREFACE

The culmination of a postgraduate student's journey is seen in the completion of their research work in the form of a thesis. As a document, the thesis is evidence of the student's knowledge and competence in their area of specialisation. The thesis is the mark of the student's achievement as a postgraduate student, and marks the student's entry into the world of academia.

Whilst originality is very much appreciated in a thesis, the thesis is still bound by certain academic conventions and rules, which must be observed. It is therefore important that the student has knowledge of these conventions and rules, as required by academia at large, and also as stipulated by the university. This book is a reference and guide to these conventions and rules, intended to help students in ensuring that they conform to formats which fulfill the requirements of the university. The book contains both general and specific guidelines in preparing for the final submission of the thesis, including clear instructions on matters relating to format, length, footnotes, tables and appendices, bibliography/references, citation and referencing styles, plagiarism, copyright and publication prior to submission, the languages required for abstracts, and permissible languages.

This is the second edition of the Guide to Thesis Preparation. We would like to acknowledge the efforts of Professor Dr Hasanah Mohd Ghazali and her team, who initiated and published the first edition of the Guide in 2009. We would also like to express our appreciation to all deputy deans of faculties and deputy directors of institutes who were in the committee set up to review the Guide in September of 2012 for their support and feedback. We would especially like to thank Professor Dr Hamidah Ibrahim who took time to give us written feedback on how to improve the Guide.

This new edition still retains the general format of the thesis and the choice of three (3) thesis formats, similar to the first edition. Apart from updating, general editing and refinement of the contents, we have made two significant additions: the option of writing the Results and Discussion Chapter as separate chapters; and thesis copyright. The university's clear stand on copyright matters and academic integrity has been incorporated in the new declaration form which is in accordance with the Universities and University Colleges Act 1971, Constitution of Universiti Putra Malaysia: Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013), as shown in Appendix F1 and Appendix F2.

In improving the general recognisability and image quality of UPM theses, the UPM logo is now required on the spine and cover of the thesis, as shown in Appendix A and Appendix B1. For the alternative format, additional statements have been included in the last paragraphs of Page 50 and Page 53.

Today's easy access to materials through the Internet has created an increasing need for awareness of issues to do with the upholding of academic integrity. For this purpose, a chapter on plagiarism (Chapter 5) is included, with a special focus on the issue of copying the work of others. The chapter contains clear warning of the strict prohibition on unethical practices unacceptable in academia, that of copying the work of others without acknowledgement, and/or claiming it as one's own. UPM's stand on this is made very clear: using someone else's data as one's own without permission and/or acknowledgment constitutes an act of plagiarism. This act puts the student at risk of termination of candidature.

This guide serves as the 'in-house style' for all UPM theses.

Editors

Second Edition (June 2013)

Seow Heng Fong, PhD

Noritah Omar, PhD

Bujang B.K.. Huat, PhD

Hasanah Mohd Ghazali, PhD

First Edition (2009)

Hasanah Mohd Ghazali, PhD

CHAPTER 1

GENERAL REQUIREMENTS

1.1 Introduction

This guide is intended to assist the graduate students of Universiti Putra Malaysia (henceforth the University) in the preparation of their theses in terms of formatting and writing conventions. Students should refer closely to this guide and seek clarification with the staff of the Thesis Division of the School of Graduate Studies (SGS) on specific matters relating to the preparation of their thesis.

1.2 Language

The thesis should be written either in English or Bahasa Melayu. Language use should be consistent throughout the thesis, especially in terms of spelling (American or British). The Roman alphabet should be used unless otherwise required by the discipline.

1.3 Technical Specifications

The thesis must only be printed on a letter-quality or laser printer. Only the original copy of a thesis or good and clean photocopies will be accepted. Copies with correcting fluid will not be accepted.

1.3.1 Thesis Title

The title of the thesis should not exceed 20 words.

1.3.2 Number of Pages

The number of pages is dependent on the programme of study and **should not exceed 150 pages for a Master's thesis, and 240 pages for a PhD thesis** (excluding tables, figures and appendices). Students must obtain written permission from the SGS before submitting a thesis longer than the prescribed length. Students should provide strong justifications to support their request.

1.3.3 Page Layout

The text should be presented in the portrait layout. The landscape layout may be used for figures and tables.

1.3.4 Type of Paper

White simile A4 size (210mm x 297mm) paper (80g) or paper of equivalent quality should be used. Students must include an extra blank sheet for the front and back of the thesis. Photocopies of the thesis must be on similar quality paper.

1.3.5 Typeface and Font Size

The text of the thesis, including headings and page numbers, must be produced with the same font or typeface. The font size should be 12-point and should not be scripted or italicised except for scientific names and terms in a different language. Bold print may be used for headings. Footnotes and text in tables should not be less than 8-point. Fonts appropriate for a thesis include:

Arial
Book Antiqua
Bookman
Palatino
Tahoma
Times New Roman

1.3.6 Margins

The left margin should be at least 40 mm, and the right, top and bottom margins at least 25 mm. Margin specifications are meant to facilitate binding and trimming.

All information (text headings, footnotes, and figures), including page numbers, must be within the text area as demarcated by the dotted lines shown on this page.

1.3.7 Spacing

The thesis should be double-spaced, with four spaces between paragraphs and sections. The following, however, should be single-spaced:

- i. Footnotes (if absolutely necessary);
- ii. Quotations of three lines or more, indented and set in a block;
- iii. References or bibliography (except between entries);
- iv. Multi-line captions (tables, figures);
- v. Appendices, such as questionnaires, letters; and
- vi. Headings or subheadings.

1.3.8 Pagination

All pages should be numbered consecutively throughout the thesis, including pages containing tables, figures and appendices. Page numbers should be centred either centrally or right flushed at either the top or bottom margins. Page numbers should appear by themselves and should not be placed in brackets, be hyphenated or be accompanied by decorative images. Text, tables and figures should be printed on **one (1)** side of each sheet only.

Preliminary pages preceding Chapter 1 must be numbered in lowercase Roman numerals (i, ii, iii etc). The title page should not be numbered although it is counted as page i. Page 1 is the first page of the Introduction (Chapter 1) but is not numbered.

1.3.9 Binding

Before making the required number of copies and binding the thesis, ensure that all University requirements have been met and necessary signatures have been obtained. Check that all pages are in the correct order. The thesis should be bound with a **black** hard cover and the binding should be of a fixed kind in which pages are permanently secured. The following are requirements for the front cover.

A. Thesis Spine (refer to Appendix A for details)

The spine must be entirely lettered in gold, using a 20-point font and must contain the following:

- i. Name of student;
- ii. Degree for which the study is submitted; and
- iii. Year of submission.

B. Front Cover

The front cover must be entirely lettered in gold using 18-point gold block font and contain the following:

- i. UPM Logo;
- ii. Title of thesis;
- iii. Name of student;
- iv. Degree;
- v. Name of the university; and
- vi. Year of submission.

1.4 Submission

Students intending to submit a thesis must do the following:

- i. Submit the prescribed Form GS-14a (Notice of intention to submit a thesis for examination) to SGS at least three months before submission;
- ii. Submit five (5) soft-bound copies of the thesis with a completed Form GS-15a to SGS for examination; and
- iii. Submit one loose copy of the corrected thesis, the list of corrections made, forms GS-16a and GS-17 to SGS within

- 15 days if the thesis is accepted with distinction; or
- 30 days if the thesis is accepted with minor modifications; or
- 60 days if the thesis is accepted with major modifications after the successful defence of the thesis.

Students should then submit the following to SGS after notification of acceptance of thesis:

- i. **Two (2)** copies of the thesis in black hard cover
- ii. **Three (3)** softcopies of the thesis on CD

Students are also required to submit a bound copy of the thesis to every member of their respective supervisory committees.

CHAPTER 2

THESIS FORMAT

The following describes what is generally known as the conventional format of a thesis. There are **two (2)** formats available, and students are allowed to choose one that is appropriate for the discipline of their study.

A thesis generally consists of three main parts: preliminary pages; text or main body (usually divided into chapters and sections), and supporting pages, containing references/bibliography, appendices, and biodata of the student. If applicable, a list of publications resulting from the study carried out during the period of candidature where the student is the first or principal author should be inserted after the student's biodata page.

The preliminary pages include the title page, dedication, abstracts in English and Bahasa Melayu, acknowledgements, approval sheets, declaration form, table of contents, and lists of tables, figures and abbreviations.

The typical layout of a thesis is shown in Table 1. The entire thesis should be bound in a single volume. However, in cases when appendices are particularly long, the thesis may be bound in two volumes. In such cases, the second volume should contain the appendices only, and shall begin its pagination with page 1.

The second volume should contain a list of appendices immediately before the appendices. References, the student's biodata and list of publications should stay within the first volume in the sequence shown above.

2.1 Title Page

The title page should include the following:

- i. UPM logo
- ii. full title of thesis;
- iii. full name of student;
- iv. degree for which the thesis is submitted;
- v. name of the university;
- vi. School of Graduate Studies; and
- vii. month and year of submission.

See Appendix B1 for the layout of the title page. The title should describe the content of the thesis accurately and concisely, omitting words such as 'An Investigation of', 'An Analysis of', or 'A Study of', which are redundant. All

theses are investigations, analyses or studies of one kind or another. For a more detailed guide to determining a suitable thesis title, see Appendix B2.

Table 1. A Typical Layout of a Thesis

No.	Items	Remarks
1	Blank Page	-
2	Title Page	Not to be paginated but counted as i. See Section 2.1
3	Copyright page	See Section 2.2
3	Dedications (if any)	-
4	Abstract	See Section 2.3
5	<i>Abstrak</i>	See Section 2.3
6	Acknowledgements	See Section 2.4
7	Approval Sheets	See Section 2.5
8	Declaration Form	See Section 2.6
9	Table of Contents	See Section 2.7
10	List of Tables	See Section 2.8
11	List of Figures	See Section 2.9
12	List of Abbreviations/ Notations/Glossary of Terms	See Section 2.10
13	Body of Thesis	Numbered consecutively from 1 onwards. See Section 2.10
14	References/Bibliography	Continue with the consecutive numbering. See Section 2.11
15	Appendices	See Section 2.12
16	Biodata of the Student	See Section 2.13
17	List of Publications	See Section 2.14
18	Blank Page	-

2.2 Copyright Page

Please note that a copyright page must be included on the verso page immediately following the title page of the thesis, and before the dedication. This copyright must state that the thesis is the intellectual property of Universiti Putra Malaysia. For the full text of the copyright notice, see Appendix B3.

2.3 Abstract

The abstract is a digest of the entire thesis and should be given the same careful attention as the main text. It should not include any references. Abbreviations or acronyms must be preceded by the full terms at the first use. An abstract should be between 300 and 500 words. It includes a brief statement of the problem and objectives of the study, a concise description of the research method and design, a summary of the major findings including their significance, and conclusions.

The abstract should be written in **both** English and Bahasa Melayu. The version to appear first should be of the same language of the thesis. The format of abstract heading is shown in Appendices C1-2. Even though a thesis may have been written in English, the abstract in Bahasa Melayu must also reach an acceptable scholarly standard. Common pitfalls such as spelling errors, incorrect usage of prepositions and prefixes (e.g. *di*, *ke*) should be avoided. Scientific terms must be used accurately and consistently.

2.4 Acknowledgements

Acknowledgements are written expressions of appreciation for guidance and assistance received from individuals and institutions.

2.5 Approval Sheets

Two approval sheets are required. One sheet will bear the signature of the Deputy Dean of the SGS certifying the approval of the thesis by the Thesis Examination Committee. The other will bear the signature of the Dean of the SGS after the University Senate has awarded the degree. Please refer to Appendices D1-D2 (for thesis written in English) and Appendices D3-D4 (for thesis written in Bahasa Melayu) for details.

2.6 Declaration Form

The declaration form should be written as shown in Appendices E1-E2.

2.7 Table of Contents

The Table of Contents lists in sequence all relevant subdivisions of the thesis with their corresponding page numbers (see Appendices F1-F4).

2.8 List of Tables

The list shows the **exact titles or captions** of all tables in the text and appendices, together with the starting page number of each table, and must be listed in sequence. If the whole thesis contains only one or two tables, then a List of Tables is not necessary.

2.9 List of Figures

Figures include graphs, maps, charts, engineering drawings, photographs (plates), sketches, printed images, and any other form of illustration that is not a table. The **exact titles or captions** and their corresponding page numbers must be listed in sequence. Figures, including any in the appendices, should be numbered consecutively throughout the thesis. If the whole thesis contains only one or two figures, then a list of figures is not necessary.

2.10 List of Abbreviations/Notations/Glossary of Terms

If abbreviations and acronyms are used in the thesis, they should be explained in a List of Abbreviations, even though the full names are given at first use. This list should be the last item in the preliminary section. It serves as a ready reference to readers not familiar with the abbreviations used in the thesis. Universally recognised scientific symbols (such as CO₂, cm, mm, kg, ha) need not be listed.

2.11 Body

The body of a thesis normally consists of sections which are organised as chapters. A chapter may be divided into major sections and subsections. Main or primary headings within chapters are to be centred while sub-headings are left justified. Tertiary headings are indented **five (5)** spaces and are not listed in the Table of Contents.

The main sections and subsections of a chapter may be identified by numbers where the former are regarded as being the first level. For example, Sections 2.1 and 2.2 would denote two consecutive main sections in Chapter 2, and Sections 3.1 and 3.2 would denote two consecutive main sections in Chapter 3. A subsection would be found in a major section of a chapter, and is regarded as the second level. It should be numbered 2.1.1., 2.1.2 etc. The numbering style should be consistent throughout the thesis and should be limited to 4 levels. Examples of how main sections and subsections are organised are listed in Appendices G1 and G2.

Placements for tables and figures are as described above in Sections 2.7 and 2.8. Students are advised to discuss the usage of tables and figures with their supervisor before their inclusion in the thesis, as different disciplines have different preferences.

2.11.1 Chapter Layout

There are **three (3)** ways to format the chapters of a thesis. Two are described in this chapter, and the third in Chapter 3. The first style (see below) is the most common of the three. Style 2 should be considered only when each research chapter, although related, represents a study that may stand on its own, and

where the Materials and Methods section is sufficiently different from the other research chapters. The body of a thesis in the field of Mathematics may be organised in a similar way to Style 2, with the following exceptions:

- i. Combine Chapters 1 and 2 if necessary
- ii. Replace 'Materials and Methods' with 'Problem Solving' in the research chapters

Style 1 (See Appendices F1 and F2)

Chapter	Item
1	Introduction (including objectives)
2	Literature Review
3	Materials and Methods/ Methodology
4	Results/Findings*
5	Discussion*
6	Summary, Conclusion and Recommendations for Future Research

Style 2 (See Appendices F3 and F4)

Chapter	Item
1	Introduction (including objectives). The relationship between the research chapters should also be explained in this chapter
2	Literature Review
#3-5	Research chapters. Each chapter represents a separate study that has its own Introduction (including objectives), Materials and Methods/ Methodology, Results/Findings,* Discussion,* and Conclusion
6	Summary, Conclusion and Recommendations for Future Research

*Results/Findings may be combined with Discussion in a single chapter for Style 1, or as a sub-heading within a research chapter for Style 2.

#More of these chapters may be added if necessary

Introduction

This chapter introduces the subject matter and problem(s) being studied, and indicates its importance and validity. It sets out the **hypotheses** to be tested and **research objectives** to be attained. In some theses, usually those in mathematics, this section may be combined with the literature review. It is important to remember that the research objectives stated in the thesis should match the

findings of the study. Failing to do so will result in a verdict of 'Re-submission of Thesis' by the Thesis Examination Committee, and a recommendation to conduct additional studies so that the stated objectives are met.

Literature Review

This section encompasses a critical and comprehensive review of the literature related to the topic of thesis. It is meant to act as a base for the experimental and analytical sections of the thesis. Literature selected must be up to date, and be analysed and synthesised logically. It is not simply a summary of works of different authors. The review should give the gist of each book or pertinent findings of a journal article, explain how it relates to the topic and show **why** it is not sufficient to answer the research questions. For example, the study being reviewed uses a Japanese sample, while the research is examining the situation in Malaysia. Textbook materials on basic principles or theories should be kept to a minimum.

Materials and Methods/Methodology

This section varies from thesis to thesis depending on the discipline of study, and may be absent in theoretical theses. It contains a description and justification of the materials, theoretical approaches, experimental designs and methods (including statistical analysis) used to achieve the stated objectives of the study undertaken. In the social sciences, a conceptual framework will need to be included. In engineering and in the pure and applied sciences, this may include, but is not limited to, a description of the methodology, theoretical development, fundamental philosophical foundation, experimental design and standard procedure description. The materials and methods used in the study should be described in detail and concisely such that a reader would be able to replicate the experiment solely with the information contained in this section. References must be cited for published protocols or methods.

Results/Findings

This section of the thesis may also be combined with the Discussion section because the content tends to be related. This section may be broken down into subsections. The section presents a complete account of the results obtained in the study in the form of text, figures or tables so that the key information is highlighted. The same set of results or data should not be presented in more than one format (e.g. either as a table or figure, but not both). When results are placed in one chapter, sub-headings may be used to demarcate the different aspects of the study.

Discussion

This section bridges the data presented or described in the preceding section, and contains the analyses or interpretations of the results obtained, and the

conclusions drawn. Students should discuss these results in relation to the hypotheses or objectives set out in the Introduction, and how they fit into the existing or current body of knowledge. The significance and implications of the main findings should be made clear.

Summary, Conclusion and Recommendations for Future Studies

This chapter is important since it illustrates the significance of the study and stresses the findings upon which a conclusion or conclusions are drawn in line with the objectives set, acknowledges the limitations, and suggests further research which may be carried out on the topic.

2.11.2 Tables

Ensure that all tables shown in the thesis, including those in the Appendices, are referred to in the text. Tables should be numbered with Arabic numerals throughout the thesis (including both text and appendices). There are two possible numbering schemes: either (a) number the tables consecutively throughout the thesis, e.g. 1, 2, 3 and so on, or (b) number them by chapter, e.g. Table 1.1, Table 1.2 and Table 1.3 to indicate they belong to Chapter 1, Table 2.1, Table 2.2 and Table 2.3 to Chapter 2, and so on.

A table should be on the page following the first reference to it or, if this is not practical as soon as possible in the following pages. When a large table is placed in landscape orientation, the top of the table should be at the binding edge. The table number, title and caption should be single-spaced and placed **above** the table (Appendices H1-2). The style used must be consistent throughout the thesis.

Table sources and notes should be placed directly below the table. If a table has been adapted from a source, indicate using "Adapted from..." instead of "Source: ...". Avoid the use of vertical lines to separate columns within a table unless absolutely necessary.

2.11.3 Figures

As with tables, ensure that each figure is referred to in the text. Figures include maps, charts, graphs, diagrams, photographs (or plates), engineering drawings and printed images. They are numbered consecutively or according to the chapter throughout the thesis, including those in the Appendices. The figure number, title and caption should be single-spaced and placed **below** the figure using Arabic numerals and lowercase, except for proper nouns and the first letters of principal words (Appendix I). Figures should be inserted as soon as possible after their first mention in the text. The style used must be consistent throughout the thesis.

If a figure occupies an entire page, the caption may be typed on the left-hand page (reverse side blank) facing the figure. It is counted but not paginated. The top of a figure drawn in landscape format should be aligned to the binding edge. The figure number, title and caption should be typed parallel to the orientation of the figure. Figures should conform to standard margin requirements. Engineering drawings should follow appropriate standards, with any large size drawings placed as appendices.

2.11.4 Equations

All equations, whether mathematical and chemical, are considered as text and numbered according to chapter. If detailed derivation is needed, it is to be placed in an appendix.

2.11.5 Footnotes

Footnotes should be used sparingly in any thesis except if required by the discipline. They should be used only to clarify a certain term, or to state conversion factors or exchange rates – **not** to cite authority for specific statements or research findings. Citations of authority are described below. If footnotes are necessary, footnote indicators (reference numbers in the text) are usually typed in superscript (e.g.^{1,2}). The numbering of footnotes should begin with 1 and must be continuous within each chapter or appendix, and not throughout the whole text.

2.11.6 Citations

Students are responsible for choosing a style of citation appropriate to the field and using that style **correctly and consistently**. Students should consult their respective supervisors for guidelines. The use of software such as RefWorks or EndNote for publishing and managing bibliographies, citations and references is encouraged. At the end of the thesis, the student must supply a list of references in alphabetical order by author, with consistent punctuation. See Appendices J1-2 for sample citations.

2.11.7 Headers and Footers

The use of headers and footers is not allowed.

2.12 References/Bibliography

The References or Bibliography section contains the list of works cited in the thesis. Students should not cite as references articles published from the studies that they themselves conducted during their candidature.

¹This is here simply to illustrate the use of footnotes.

²As above.

The SGS does not specify which reference style is to be used. However, students are advised to follow a style used by an authoritative journal in the field of study. Although different journals and publishers use different reference styles, a thesis has to have **one (1)** consistent style. See Appendices J1-2 for samples of commonly used reference styles.

Students should check for the latest versions of different reference styles. Some systems, such as the American Psychological Association (APA) reference format, are frequently updated.

2.13 Appendices

Information or data that is too detailed for the main body of the thesis may be included as appendices. These are placed after the reference list. Appendices include original data, summary, sideline or preliminary tests, tabulations, tables that contain data of lesser importance, very lengthy quotations, supporting decisions, forms and documents, computer printouts, detailed engineering drawings and other pertinent documents. Appendix materials should be grouped by type, e.g., Appendix A: Questionnaire, Appendix B: Original data, Appendix C: Tables of results.

Appendices must be paginated consecutively with the main text. If there are three or less appendices, their details (such as number and titles) should be listed as items in the Table of Contents. If there are more than three appendices, the Table of Contents should include a List of Appendices with corresponding page numbers. The list itself should come immediately after the List of Figures.

2.14 Biodata of the Student

This section is compulsory. It contains the student's biographical information, such as name, educational background, the degree that is being sought, professional work experience (if any), and any other similar matters that may interest the reader. The *vita* should be in essay form, rather than a mere résumé.

2.15 List of Publications

All publications (in journals and proceedings) that result from the study undertaken by the student while under supervision and during their candidature, and for which the student is the first or principal author, should be listed clearly and accurately. These publications should not be used as references in the thesis.

CHAPTER 3

ALTERNATIVE THESIS FORMAT

The University has recently approved the manuscript style format as an alternative to the conventional format described in Chapter 2. This format is meant specifically for students who, while they are still within their period of candidature, have already published the findings of their study in peer-reviewed journals, or have articles that are accepted for publication in similar scholarly journals. The technical or research chapters under this format represent a reproduction of these articles.

3.1 Thesis Layout

The layout for the alternative format is that of a typical thesis (please refer to Chapter 2) as shown below, except for the way the research chapters are organised (Section 3.2).

- i. Title page
- ii. Blank page
- iii. Abstract
- iv. Acknowledgements
- v. Approval sheets
- vi. Declaration forms
- vii. Table of contents
- viii. Introduction
- ix. Literature review
- x. Materials and methods/Methodology
- xi. Research chapters (Section 3.2 for details)
- xii. Summary, conclusion and recommendations for future research
- xiii. References/Bibliography (Section 2.11 for details)
- xiv. Appendices (these are to be placed at the end of the thesis as archives. They will include detailed research methodology and any important data which has not been included in the journal papers.)
- xv. Biodata of the student

Appendix F5 shows in greater detail the Table of Content for this format.

3.2 Organisation of Research Chapters

This section comprises the student's own research papers which have either been published, or already accepted for publication in citation-indexed journals, for which they are the first author or principal researcher, and which were produced under supervision and during the period of candidature. The student may refer

to the following for guidance in the selection of journals: Thomson Scientific *ISI Web of Knowledge*SM website at <http://scientific.thomson.com/mjl/>, the Arts and Humanities Citation Index at <http://www.columbia.edu/cu/lweb/eresources/databases/2087600.html>, Social Sciences citation Index at <http://www.lib.umich.edu/govdocs/ssci.html> or any other listing relevant to the field of study.

Each reprint or accepted paper represents a chapter. **These materials must be re-typed using the format outlined in the technical specifications in Chapter 1 of this Guide.**

Written consent must be secured from the copyright owners for all copyrighted materials and the permission letters should be attached at the end of the chapter. Where there are joint authorships, the works of the others must be clearly specified. For manuscripts that have been accepted for publication, a copy of the acceptance letter from the journal concerned should also be shown at the end of the relevant chapter. Papers presented at conferences or seminars, and those published in conference or seminar proceedings are not acceptable alternatives. Additional chapters may be added to include findings that have not been published. The format of such chapters should be consistent with that of the preceding chapters. The number of journal papers required differs according to the type of degree as shown below.

- i. Master's programmes: At least two chapters should constitute research papers already published or accepted by peer-reviewed journals, with at least one in an appropriate citation-indexed journal.
- ii. PhD programmes: At least four chapters should constitute research papers already published or accepted by peer-reviewed journals, with at least two in appropriate citation-indexed journals.

CHAPTER 4

WRITING CONVENTIONS

4.1 Units of Measure

Use internationally recognised units of measure, preferably SI,³ such as:

1 litre (1 L)
20 millilitres (20 mL)
5 kilogram (5 kg)
20 kilometre (20 km)
2.5 hectare (2.5 ha)
3.7 metric tonnes (3.7 t)
45 parts per million (45 ppm)
12 gram (12 g)
500 US Dollars (USD 500)
3.4 metric tonne/hectare (3.4 t/ha)

The numbers before the measurement units should not be spelt out, (e.g., write 5 kg, not five kg) even if they are below 100 (see Section 3.2) unless they are the first word of sentences or the number one (1). Note the space between the figure and the unit of measure.

4.2 Numbers

All integers less than ten should be spelt out unless they are attached to units of measure (e.g. 5 kg, 10 mL). Use figures for the number 10 or more than 10. If a sentence begins with a number, write the number in words, e.g. "Three hundred and eighty-five farmers from the study area were interviewed", instead of "350 farmers from the study area were interviewed." or change the order of the sentence. Use numerals for a series of figures. For example:

- i. There were 4 chairs, 12 boxes, 13 books, 10 files, 9 umbrella and 8 pairs of shoes in the room.
- ii. The number of taxi permits issued during the past six years was 8, 53, 27, 38, 52, and 90.

4.3 Names of Organisms

The name of an organism should be written in full the first time it appears in both the abstract and in the text. The name may then be abbreviated according to accepted conventions, e.g. *Escherichia coli* should be shortened to *E. coli*.

³ SI stands for *Système International d'Unités*, or International System of Units.

4.4 Elliptical Marks

Writers use the ellipsis mark to show an omission from quoted material. The ellipsis consists of three-spaced full stops (...). When an ellipsis comes at the end of a sentence, it appears as four full stops (. ...). One full stop marks the end of the sentence and the other three full stops signal the omission. For example:

Khatijah (1985, p. 4) wrote about the conference: "Members at the conference at Kuala Lumpur...agreed that the world educational crisis sketched in the document was real. ..."

4.5 Use of Square Brackets []

Within direct quotations, brackets are used to enclose any explanatory note inserted by the thesis writer, e.g.

[In 2005] alone, we had 200 applicants wanting to enrol for our new diploma programme (Salleh, 2005).

Use [sic] (within square brackets) to indicate a certain doubt as to meaning or factual error. It simply means "thus" or "As written in the original." It is used in quotations to show that the original is being faithfully reproduced, even though it is incorrect or seems to be so. Errors which are obviously typographical such as spelling errors should be corrected as a matter of professional courtesy.

Square brackets should also be used to show that capitalisation has been altered within a sentence. If the quotation used does not start with a capital letter in the original, but needs one in the new context because it is in the form of a full sentence, a capital letter accompanied by square brackets should be used. If, for example, six words from the following sentence are to be used,

It has been shown that some diabetics can control their disease without medication.

The student should write:

"[Some] diabetics can control their disease" (Sulmiah, 2005, p.17).

These square brackets alert the reader to the fact that the original author had some words in the same sentence before those quoted, and did not intend the statement to stand alone. However, the quoted words can stand alone as a full sentence, and as such, must begin with a capital letter.

4.6 Use of a Symbol to Show Percentage

The symbol % may be used in place of the word percent, e.g. 27.3% and typed without a space before it. If the student prefers to write 27.3 percent in full, then consistency must be maintained throughout the thesis. In tables, the abbreviation Pct may be used at the head of a column to mean percent.

4.7 Policy on Direct Quotations

Direct quotations must be kept to a minimum except in some fields such as literature. Some examiners disallow quotations of over 10 lines. If, there is a need to use a set of recommendations from a report, these should be paraphrased succinctly. Also provide the original full text in the appendix.

4.8 Format for Quotations

Both direct and indirect quotations **must** be acknowledged. The penalties for quoting without acknowledgment are severe, as is explained in the section on plagiarism. In the text, authors' surnames are used. The list of references is ordered by surname. For most names, this means the last name is first. Exceptions include Chinese names, (in which the family name is already first and so stays first), and Malay names (in which the whole name is given as there is no equivalent to a family name). For example, Mary MacLaren would become MacLaren in the text and MacLaren, Mary or MacLaren, M in the list of references; Wong Siew Lan would be Wong in the text, and stays Wong Siew Lan or Wong, S.L. in the list of references while Aminah Aris would be either Aminah Aris, Aminah, A or Aris, A, in both text and references. When in doubt about the format for citing a reference by a Chinese or Malay author, seek the advice of your supervisors.

4.8.1 Direct Quotations

Direct quotations less than three lines in length can be indicated using double quotations marks. If the length of the quotation is three full lines or more, use indentation and include page numbers. Indented quotations should be single-spaced with no quotation marks.

Example of a direct quotation that is less than a sentence and is worked smoothly into your text:

As Hattersley and McJannet (2005, p.121) explain, feedback, both giving and receiving, is an "essential" management skill.

Examples of direct quotations that are in themselves full sentences.

As Hattersley and McJannet (2005) state, "Giving and receiving feedback are essential managerial skills" (p. 121).

If the name of the author or authors quoted does not open the sentence, it is given at the end with the date and page number.

Many authors stress the importance of feedback because "giving and receiving feedback are essential managerial skills" (Hattersley and McJannet, 2005, p. 121.)

Longer quotations are indented on the left side only or on both sides. Indenting shows that the text is quoted so quotation marks are redundant.

In 1993, the Main Board was refurbished through the launch of four new sectors (consumer products, construction, industrial products, and trading and services), the introduction of a loans sector and the merging of the oil palm and rubber sectors as the plantations sector, (Foong, 2004, p. 17).

4.8.2 Indirect Quotations

If ideas or information but not the wording of the original source are used, provide the name and date of the publication, leaving other details for the reference list at the end. For example:

Hattersley and McJannet (2005) explain the importance of giving feedback.

Or

Feedback is extremely important (Hattersley and McJannet, 2005).

If general statements are being made, requiring the citation of several authorities, these must be listed in chronological order, with a semicolon between each source. Recent practice is to reverse the order, that is, to put the most recent authorities first.

Intercultural understanding is an important component in any international transaction (McLaren, 2005; Varner and Beamer, 2003; Hofstede, 2001).

CHAPTER 5

PLAGIARISM

Plagiarism is taking the works of others and using them as if they were your own. Such works include:

- i. Words or ideas from printed literature such as journal papers, magazine articles, books, newspapers, web pages, computer programmes, etc.;
- ii. Published figures, tables, diagrams, illustrations, charts, maps, pictures or other visual materials; and
- iii. Information from interviews, etc.

Plagiarism comes in three forms:

- i. Copying full sentences or even paragraphs straight from the source as though they are the student's own work; and
- ii. Using the original wording from the source material without inverted commas or indentation, even if the source is acknowledged.
- iii. Paraphrasing without acknowledgement.

Usually, a change in style alerts the reader to the possibility of plagiarism. Examiners are likely to know the literature and recognise the plagiarism, but it is also true that it sometimes goes by undetected. It is now possible to detect plagiarism by simply searching a small string of words on the Internet. Additionally, plagiarism-checking software programmes, such as Turnitin, are also widely available. These programmes produce Originality Reports, which list the percentage of similarity between the student's words and the source. Even excerpts with minimal alterations will be detected. Plagiarism is considered form of theft, and is under no circumstances acceptable in the world of scholarship. As such, if plagiarism is proven in a thesis at the examination stage, the thesis is automatically failed and the students' candidature terminated.

Avoid Plagiarism

The key to avoiding plagiarism is to make sure credit is given where it is due when incorporating another writer's work. Students should do this even when the original source is paraphrased or summarised. When quoting a published or verbal statement, it must be identical to the original and must be attributed to the original author. **Always** cite the authors whose published works or statements are used in the thesis. The University's stand on plagiarism is found in Part 12 of the Universities and University Colleges Act 1971 Constitution of Universiti Putra Malaysia: Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision

2012-2013). The usage of materials such as diagrams and figures which are available on the internet or published articles without the permission of the copyright owners is an infringement of copyright and is not allowed.

CHAPTER 6



USE OF AN EDITORIAL SERVICE

Some students employ professional editors to 'polish' their written thesis. This should be done before the thesis is sent for examination. Be aware that some people who claim to be editors are not qualified, so check carefully before you commit yourself to an editor. The SGS does not insist that all theses be sent to professional editors (who charge a fee for their services). However, students should know that the SGS accepts only theses that are free from basic errors in spelling, grammar and punctuation. Supervisors cannot be held responsible for the grammatical errors in the student's thesis. Their main responsibility is to check the content of the thesis, and not the language used. Upon submission of the final thesis prior to binding, the SGS will browse through the thesis to ensure that it conforms to the present Guide.

APPENDICES

Appendix A
Example of the Spine and Cover of a Thesis

Spine

<div>NAME OF STUDENT NAME OF DEGREE YEAR</div> <div>(Bold, 20-point gold-coloured font)</div>	<div><div><div><div>6.5 cm</div><div></div><div></div></div><div>3.0 cm</div><div>Gold stamping</div></div><div>TITLE OF THESIS</div><div>(Uppercase, centred, bold, 18-point gold-coloured font)</div><div>NAME OF STUDENT</div><div>(Uppercase, centred, bold, 18-point gold-coloured font)</div><div>NAME OF DEGREE</div><div>(e.g. DOCTOR OF PHILOSOPHY)</div><div>UNIVERSITI PUTRA MALAYSIA</div><div>Year</div><div>(Centred, bold, 18-point gold-coloured font)</div></div>
---	--

Note: The left, right, top and bottom margins should be at least 4 cm.

Appendix B1 Title Page



TITLE OF THESIS
(Uppercase, centred, bold, 12-point font)

By

NAME OF STUDENT
(Uppercase, centred, bold, 12-point font)

Thesis Submitted to the School of Graduate Studies,
Universiti Putra Malaysia, in Fulfilment of the
Requirements for the Degree of (Insert the name of
degree)

Month and year of Viva Voce

Note: The left margin should be at least 4.0 cm and the right, top and bottom margins at least 2.5 cm.

Appendix B2

Guidelines for Determining a Suitable Title for a Thesis

Before submitting a thesis, students and members of their respective supervisory committees are required to ensure that the title of the thesis is grammatically correct and reflects the study undertaken. The following guidelines should also be taken into consideration when deciding on the most appropriate title for the thesis.

1. Ensure that important keywords are found in both the title and abstract of the thesis.
2. For titles in Bahasa Melayu, use terms that are actually found in the *Kamus Dewan* or *Istilah Bahasa Melayu* for the relevant fields of study.
3. Avoid the use of abbreviations and/or acronyms. Instead, use the full terminology, unless the term is commonly used in the field of study (e.g. ESL, DNA, PCR, GIS).
4. Avoid the use of a colon (:) or dash (-) e.g. ‘*Bacillus subtilis* amylase: Purification and Characterisation’ or ‘*Bacillus subtilis* amylase - Purification and Characterisation’. The title may be replaced with ‘Purification and Characterisation of *Bacillus subtilis* amylase’.
5. Ensure that when both the common and scientific names of an organism (where applicable) are mentioned, the common name is stated first followed by the scientific name (including variety if known) in parentheses.
6. Where possible, ensure that the title does not begin with “The...” e.g., “Effects of...” instead of “The Effects of...”
7. The title should not exceed 20 words.

Appendix B3 Copyright Page

On the verso page immediately following the title page, a copyright page must be included, which contains the following text:

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia.

Copyright © Universiti Putra Malaysia

Or

Semua bahan yang terkandung dalam tesis ini , termasuk tanpa had teks, logo, ikon, gambar dan semua karya seni lain, adalah bahan hak cipta Universiti Putra Malaysia kecuali dinyatakan sebaliknya. Penggunaan mana-mana bahan yang terkandung dalam tesis ini dibenarkan untuk tujuan bukan komersil daripada pemegang hak cipta. Penggunaan komersil bahan hanya boleh dibuat dengan kebenaran bertulis terdahulu yang nyata daripada Universiti Putra Malaysia.

Hak cipta © Universiti Putra Malaysia

Appendix C1

Format of Abstract

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirement for the degree of (name of degree)

TITLE OF THESIS

By

NAME OF STUDENT

Month and Year of Viva Voce

Chair: Name of Chairman of Supervisory Committee, PhD

Faculty: Name of Faculty

The abstract is a digest of the entire thesis and should be given the same consideration as the main text. It does not normally include any reference to the literature. Abbreviations or acronyms must be preceded by the full term at the first use.

An abstract should be between 300-500 words. It includes a brief statement of the problem, a concise description of the research method and design, a summary of major findings, including their significance or lack of it, and conclusions.

Appendix C2

Format of Abstract for a Thesis Written in Bahasa Melayu

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
Sebagai memenuhi keperluan untuk ijazah (nama ijazah)

TAJUK TESIS

Oleh

NAMA CALON

Bulan dan Tahun *Viva Voce* diadakan

Pengerusi: Nama Pengerusi Jawatankuasa Penyeliaan, PhD

Fakulti: Nama Fakulti

Abstrak merupakan ringkasan keseluruhan tesis dan wajib diberi perhatian rapi sepertimana bahagian tesis yang lain. Abstrak tidak mengandungi bahan rujukan. Nama singkatan atau akronim mesti didahului dengan terminology penuh pada penggunaan kali pertama.

Abstrak harus diolah antara 300-500 perkataan. Abstrak merangkumi peryataan permasalahan, penerangan ringkas dan tepat tentang reka bentuk dan pengkaedahan penyelidikan, rumusan penemuan utama dan kesimpulan.

Appendix D1 Approval Sheet 1

I certify that a Thesis Examination Committee has met on (date of viva voce) to conduct the final examination of (student's name) on his (or her) thesis entitled ("Title of Thesis") in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the (insert the name of relevant degree).

Members of the Thesis Examination Committee were as follows:

Name of Chairperson, PhD

Title (e.g., Professor/ Associate Professor/ Ir; omit if irrelevant)

Name of Faculty

Universiti Putra Malaysia

(Chairman)

Name of Examiner 1, PhD

Title (e.g., Professor/ Associate Professor/ Ir; omit if irrelevant)

Name of Faculty

Universiti Putra Malaysia

(Internal Examiner)

Name of Examiner 2, PhD

Title (e.g., Professor/ Associate Professor/ Ir; omit if irrelevant)

Name of Faculty

Universiti Putra Malaysia

(Internal Examiner)

Name of External Examiner, PhD

Title (e.g., Professor/ Associate Professor/ Ir; omit if irrelevant)

Name of Department and/ or Faculty

Name of Organisation (University/ Institute)

Country

(External Examiner)

(Insert name of current Deputy Dean)
(E.g. XXXX XXXX, PhD)

Deputy Dean

School of Graduate Studies

Universiti Putra Malaysia

Date:

Appendix D2

Approval Sheet 2

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of (type of degree). The members of the Supervisory Committee were as follows:

Name of Chairperson, PhD (omit 'PhD' if not applicable)

Title (e.g., Professor/ Associate Professor/ Ir; if applicable)

Name of Faculty

Universiti Putra Malaysia

(Chairman)

Name of Member 1, PhD (omit 'PhD' if not applicable)

Title (e.g., Professor/ Associate Professor/ Ir; if applicable)

Name of Faculty

Universiti Putra Malaysia

(Member)

Name of Member 2, PhD (omit 'PhD' if not applicable)

Title (e.g., Professor/ Associate Professor/ Ir; if applicable)

Name of Department and/or Faculty

Name of Organisation (University / Institute)

(Member)

(Add or delete if necessary)

(Insert name of current Dean)

(E.g. XXXX XXXX, PhD)

Dean

School of Graduate Studies

Universiti Putra Malaysia

Date:

Appendix D3

Approval Sheet 1 for a Thesis Written in Bahasa Melayu

Saya mengesahkan bahawa satu Jawatankuasa Peperiksaan Tesis telah berjumpa pada (tarikh *viva voce*) untuk menjalankan peperiksaan akhir bagi (nama pelajar) bagi menilai tesis beliau yang bertajuk ("Tajuk Tesis") mengikut Akta Universiti dan Kolej Universiti 1971 dan Perlembagaan Universiti Putra Malaysia [P.U.(A) 106] 15 Mac 1998. Jawatankuasa tersebut telah memperakukan bahawa calon ini layak dianugerahi ijazah (jenis ijazah).

Ahli Jawatankuasa Peperiksaan Tesis adalah seperti berikut:

Nama Pengerusi, PhD

Sapaan (Profesor/Profesor Madya/Ir; jika berkenaan)
Nama Fakulti
Universiti Putra Malaysia
(Pengerusi)

Nama Pemeriksa 1, PhD

Sapaan (Profesor/Profesor Madya/Ir; jika berkenaan)
Nama Fakulti
Universiti Putra Malaysia
(Pemeriksa Dalam)

Nama Pemeriksa 2, PhD

Sapaan (Profesor/Profesor Madya/Ir; jika berkenaan)
Nama Fakulti
Universiti Putra Malaysia
(Pemeriksa Dalam)

Nama Pemeriksa Luar, PhD

Sapaan (Profesor/Profesor Madya/Ir; jika berkenaan)
Nama Jabatan dan/atau Fakulti
Nama Organisasi (Universiti/Institusi)
Negara
(Pemeriksa Luar)

(Masukkan nama Timbalan Dekan terkini)

(E.g. XXXX XXXX, PhD)

TimbalanDekan

SekolahPengajianSiswazah

Universiti Putra Malaysia

Tarikh:

Appendix D4

Approval Sheet 2 for a Thesis Written in Bahasa Melayu

Tesis ini telah dikemukakan kepada Senat Universiti Putra Malaysia dan telah diterima sebagai memenuhi syarat keperluan untuk ijazah (jenis ijazah). Ahli Jawatankuasa Penyeliaan adalah seperti berikut:

Nama Pengerusi, PhD (gugurkan 'PhD' jika tidak berkaitan)
 Sapaan (Profesor/Profesor Madya/Ir; jika berkenaan)
 Nama Fakulti
 Universiti Putra Malaysia
 (Pengerusi)

Nama Ahli 1, PhD (gugurkan 'PhD' jika tidak berkaitan)
 Sapaan (Profesor/Profesor Madya/Ir; jika berkenaan)
 Nama Fakulti
 Universiti Putra Malaysia
 (Ahli)

Nama Ahli 2, PhD (gugurkan 'PhD' jika tidak berkaitan)
 Sapaan (Profesor/Profesor Madya/Ir; jika berkenaan)
 Nama Jabatan dan/atau Fakulti
 Nama Organisasi (Universiti/Institusi)
 (Ahli)

(Tambah atau gugur nama ahli sekiranya perlu)

(Masukkan Nama Dekan terkini)
(Contoh: XXXX XXXX, PhD)

Dekan
 Sekolah Pengajian Siswazah
 Universiti Putra Malaysia

Tarikh:

Appendix E1 Declaration Form

Declaration by graduate student

I hereby confirm that:

- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced;
- this thesis has not been submitted previously or concurrently for any other degree at any other institutions;
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia, as according to the Universiti Putra Malaysia (Research) Rules 2012;
- written permission must be obtained from supervisor and the office of Deputy Vice-Chancellor (Research and Innovation) before thesis is published (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials as stated in the Universiti Putra Malaysia (Research) Rules 2012;
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software.

Signature: _____ Date: _____

Name and Matric No.: _____

Or

Declaration by graduate students under jointly awarded or dual degree programme

I hereby confirm that:

- this thesis is my original work;
- quotations, illustrations and citations have been duly acknowledged;
- ownership of intellectual property from the thesis is as stipulated in the Memorandum of Agreement (MoA), or as according to the Universiti Putra Malaysia (Research) Rules 2012, in the event where the MoA is absent;
- permission from supervisor and the office of Deputy Vice-Chancellor (Research and Innovation) are required prior to publishing it (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports,

lecture notes, learning modules or any other materials as stated in the Universiti Putra Malaysia (Research) Rules 2012;

- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software.

Signature: _____ Date: _____

Name and Matric No: _____

Declaration by Members of Supervisory Committee

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) are adhered to.

Signature: _____
Name of
Chairman of
Supervisory
Committee: _____

Signature: _____
Name of
Member of
Supervisory
Committee: _____

Signature: _____
Name of
Member of
Supervisory
Committee: _____

Signature: _____
Name of
Member of
Supervisory
Committee: _____

Appendix E2

Declaration Form for a Thesis Written in Bahasa Melayu

Perakuan pelajar siswazah

Saya memperakui bahawa:

- tesis ini adalah hasil kerja saya yang asli;
- setiap petikan, kutipan dan ilustrasi telah dinyatakan sumbernya dengan jelas;
- tesis ini tidak pernah dimajukan sebelum ini, dan tidak dimajukan serentak dengan ini, untuk ijazah lain sama ada di Universiti Putra Malaysia atau di institusi lain;
- hak milik intelek dan hakcipta tesis ini adalah hak milik mutlak Universiti Putra Malaysia, mengikut Kaedah-Kaedah Universiti Putra Malaysia (Penyelidikan) 2012;
- kebenaran bertulis daripada penyelia dan Pejabat Timbalan Naib Canselor (Penyelidikan dan Inovasi) hendaklah diperoleh sebelum tesis ini diterbitkan (dalam bentuk bertulis, cetakan atau elektronik) termasuk buku, jurnal, modul, prosiding, tulisan popular, kertas seminar, manuskrip, poster, laporan, nota kuliah, modul pembelajaran atau material lain seperti yang dinyatakan dalam Kaedah-Kaedah Universiti Putra Malaysia (Penyelidikan) 2012;
- tiada plagiat atau pemalsuan/fabrikasi data dalam tesis ini, dan integriti ilmiah telah dipatuhi mengikut Kaedah-Kaedah Universiti Putra Malaysia (Pengajian Siswazah) 2003 (Semakan 2012-2013) dan Kaedah-Kaedah Universiti Putra Malaysia (Penyelidikan) 2012. Tesis telah diimbaskan dengan perisian pengesanan plagiat.

Tandatangan: _____ Tarikh: _____

Nama dan No. Matrik: _____

Atau

Perakuan pelajar untuk ijazah yang dianugerahkan secara bersama atau *dual* program

Saya memperakui bahawa:

- tesis ini adalah hasil kerja saya yang asli;
- setiap petikan, kutipan dan ilustrasi telah dinyatakan sumbernya dengan jelas;
- hak milik tesis adalah seperti yang dinyatakan dalam Memorandum Persetujuan (MoA), atau mengikut Kaedah-Kaedah Universiti Putra Malaysia (Penyelidikan) 2012, sekiranya tiada MoA;
- kebenaran bertulis daripada penyelia dan Pejabat Timbalan Naib Canselor (Penyelidikan dan Inovasi) hendaklah diperoleh sebelum tesis ini diterbitkan (dalam bentuk bertulis, cetakan atau elektronik) termasuk buku, jurnal, modul, prosiding, tulisan popular, kertas seminar, manuskrip, poster, laporan,

nota kuliah, modul pembelajaran atau material lain seperti yang dinyatakan dalam Kaedah-Kaedah Universiti Putra Malaysia (Penyelidikan) 2012;

- tiada plagiat atau pemalsuan/fabrikasi data dalam tesis ini, dan integriti ilmiah telah dipatuhi mengikut Kaedah-Kaedah Universiti Putra Malaysia (Pengajian Siswazah) 2003 (Semakan 2012-2013) dan Kaedah-Kaedah Universiti Putra Malaysia (Penyelidikan) 2012. Tesis telah diimbaskan dengan perisian pengesanan plagiat.

Tandatangan: _____ Tarikh: _____

Nama dan No. Matrik: _____

Perakuan Ahli Jawatankuasa Penyeliaan:

Dengan ini, diperakukan bahawa:

- penyelidikan dan penulisan tesis ini adalah di bawah seliaan kami;
- tanggungjawab penyeliaan sebagaimana yang dinyatakan dalam Kaedah-Kaedah Universiti Putra Malaysia (Pengajian Siswazah) 2003 (Semakan 2012-2013) telah dipatuhi.

Tandatangan: _____
Nama Pengerusi
Jawatankuasa
Penyeliaan _____

Tandatangan: _____
Nama Ahli
Jawatankuasa
Penyeliaan _____

Tandatangan: _____
Nama Ahli
Jawatankuasa
Penyeliaan _____

Tandatangan: _____
Nama Ahli
Jawatankuasa
Penyeliaan _____

Appendix F1
Table of Contents (Layout Style 1)
(Main headings and subheadings are not numbered)

TABLE OF CONTENTS		
ABSTRACT		Page
<i>ABSTRAK</i>		ii
ACKNOWLEDGEMENTS		iv
APPROVAL		vii
DECLARATION		viii
LIST OF TABLES		ix
LIST OF FIGURES		x
LIST OF ABBREVIATIONS		xii
CHAPTER		xiii
1	INTRODUCTION	1
2	LITERATURE REVIEW	5
	Sub-heading 1	5
	Sub-subheading 1	7
	Sub-subheading 2	10
	Sub-heading 2	15
	Sub-heading 3	21
	Sub-subheading 1	22
	Sub-subheading 2	25
	Sub-subheading 3	31
	Sub-heading 4	33
3	MATERIALS AND METHODS / METHODOLOGY	38
	Sub-heading 1 (e.g., Materials)	38
	Sub-heading 2 (Method 1)	42
	Sub-heading 3 (Method 2)	45
	Sub-heading 4 (Method 3)	47
	Sub-subheading 1	48
	Sub-subheading 2	50
	Sub-subheading 3	52
	Sub-heading 5 (Method 4)	55
	Sub-heading 6 (Method 5)	58
	Sub-subheading 1	58
	Sub-subheading 2	63

4	RESULTS AND DISCUSSION	66
	Sub-heading 1	66
	Sub-subheading 1	69
	Sub-subheading 2	72
	Sub-heading 2	75
	Sub-subheading 1	76
	Sub-subheading 2	81
	Sub-subheading 3	88
	Sub-heading 3	94
	Sub-heading 4	105
5	SUMMARY, CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH	111
	REFERENCES/BIBLIOGRAPHY	115
	APPENDICES	124
	BIODATA OF STUDENT	133
	LIST OF PUBLICATIONS	135
	(Publications that arise from the study, if applicable)	

Please note that the Results/Findings and Discussion can be written as separate chapters.

Appendix F2
Table of Contents (Layout Style 1)
(Main headings and subheadings are numbered)

TABLE OF CONTENTS		
ABSTRACT		Page ii
ABSTRAK		iv
ACKNOWLEDGEMENTS		vii
APPROVAL		viii
DECLARATION		ix
LIST OF TABLES		x
LIST OF FIGURES		xii
LIST OF ABBREVIATIONS		xiii
CHAPTER		
1	INTRODUCTION	1
2	LITERATURE REVIEW	6
2.1	Sub-heading 1	6
2.1.1	Sub-subheading 1	8
2.2.1	Sub-subheading 2	12
2.2	Sub-heading 2	15
2.3	Sub-heading 3	21
2.3.1	Sub-subheading 1	22
2.3.2	Sub-subheading 2	25
2.3.3	Sub-subheading 3	31
2.4	Sub-heading 4	33
3	MATERIALS AND METHODS / METHODOLOGY	38
3.1	Sub-heading 1 (e.g., Materials)	38
3.2	Sub-heading 2 (Method 1)	42
3.3	Sub-heading 3 (Method 2)	45
3.4	Sub-heading 4 (Method 3)	47
3.4.1	Sub-subheading 1	48
3.4.2	Sub-subheading 2	50
3.4.3	Sub-subheading 3	52
3.5	Sub-heading 5 (Method 4)	55
3.6	Sub-heading 5 (Method 5)	58
3.6.1	Sub-subheading 1	58
3.6.2	Sub-subheading 2	63

4	RESULTS AND DISCUSSION	66
4.1	Sub-heading 1	66
4.1.1	Sub-subheading 1	69
4.1.2	Sub-subheading 2	72
4.2	Sub-heading 2	75
4.2.1	Sub-subheading 1	76
4.2.2	Sub-subheading 2	81
4.2.3	Sub-subheading 3	88
4.3	Sub-heading 3	94
4.4	Sub-heading 4	105
5	SUMMARY, CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH	111
	REFERENCES/BIBLIOGRAPHY	115
	APPENDICES	124
	BIODATA OF STUDENT	133
	LIST OF PUBLICATIONS	135
	(Publications that arise from the study) – if applicable	

Please note that the Results/Findings and Discussion can be written as separate chapters.

Appendix F3
Table of Contents (Layout Style 2)
(Main headings and subheadings are not numbered)

TABLE OF CONTENTS		
ABSTRACT		Page ii
ABSTRAK		iv
ACKNOWLEDGEMENTS		vii
APPROVAL		viii
DECLARATION		ix
LIST OF TABLES		x
LIST OF FIGURES		xii
LIST OF ABBREVIATIONS		xiii
 CHAPTER		
1	INTRODUCTION	1
 2	 LITERATURE REVIEW	 5
	Sub-heading 1	5
	Sub-subheading 1	7
	Sub-subheading 2	10
	Sub-heading 2	15
	Sub-heading 3	21
	Sub-subheading 1	22
	Sub-subheading 2	25
	Sub-subheading 3	31
	Sub-heading 4	33
 3	 TITLE 1	 38
	Introduction	38
	Materials and Methods/Methodology	40
	Sub-heading 1	40
	Sub-heading 2	43
	Sub-heading 3	47
	Results and Discussion	52
	Conclusion	64
 4	 TITLE 2	 65
	Introduction	65
	Materials and Methods/Methodology	67
	Sub-heading 1	67
	Sub-heading 2	70
	Sub-heading 3	72

	Sub-heading 4	76
	Results and Discussion	80
	Sub-heading 1	81
	Sub-heading 2	89
	Conclusion	96
5	TITLE 3	97
	Introduction	97
	Materials and Methods/Methodology	99
	Sub-heading 1	99
	Sub-heading 2	101
	Sub-heading 3	105
	Results and Discussion	109
	Sub-heading 1	109
	Sub-heading 2	115
	Sub-heading 3	122
	Conclusion	126
6	SUMMARY, GENERAL CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH	127
	REFERENCES/BIBLIOGRAPHY	133
	APPENDICES	141
	BIODATA OF STUDENT	148
	LIST OF PUBLICATIONS	149
	(Publications that arise from the study, if applicable)	

Additional chapters may be added, if necessary, before the Summary, General Conclusion and Recommendations for Future Research section.

Appendix F4
Table of Contents (Layout Style 2)
(Main headings and subheadings are numbered)

TABLE OF CONTENTS		
ABSTRACT		Page
<i>ABSTRAK</i>		ii
ACKNOWLEDGEMENTS		iv
APPROVAL		vii
DECLARATION		viii
LIST OF TABLES		ix
LIST OF FIGURES		x
LIST OF ABBREVIATIONS		xii
CHAPTER		xiii
1	INTRODUCTION	1
2	LITERATURE REVIEW	5
2.1	Sub-heading 1	5
2.1.1	Sub-subheading 1	7
2.1.2	Sub-subheading 2	10
2.2	Sub-heading 2	15
2.3	Sub-heading 3	21
2.3.1	Sub-subheading 1	22
2.3.2	Sub-subheading 2	25
2.3.3	Sub-subheading 3	31
2.4	Sub-heading 4	33
3	TITLE 1	38
3.1	Introduction	38
3.2	Materials and Methods/Methodology	40
3.2.1	Sub-heading 1	40
3.2.2	Sub-heading 2	43
3.2.3	Sub-heading 3	47
3.3	Results and Discussion	52
3.4	Conclusion	64
4	TITLE 2	65
4.1	Introduction	65
4.2	Materials and Methods/Methodology	67
4.2.1	Sub-heading 1	67
4.2.2	Sub-heading 2	70
4.2.3	Sub-heading 3	72

	4.2.4	Sub-heading 4	76
4.3		Results and Discussion	80
	4.3.1	Sub-heading 1	81
	4.3.2	Sub-heading 2	89
4.4		Conclusion	96
5		TITLE 3	97
5.1		Introduction	97
5.2		Materials and Methods/Methodology	99
	5.2.1	Sub-heading 1	99
	5.2.2	Sub-heading 2	101
	5.2.3	Sub-heading 3	105
5.3		Results and Discussion	109
	5.3.1	Sub-heading 1	109
	5.3.2	Sub-heading 2	115
	5.3.3	Sub-heading 3	122
5.4		Conclusion	126
6		SUMMARY, GENERAL CONCLUSION AND RECOMMENDATION FOR FUTURE RESEARCH	127
		REFERENCES/BIBLIOGRAPHY	133
		APPENDICES	141
		BIODATA OF STUDENT	148
		LIST OF PUBLICATIONS	149
		(Publications that arise from the study, if applicable)	

Additional chapters may be added, if necessary, before the Summary, General Conclusion and Recommendations for Future Research section. Please note that the Results/Findings and Discussion can be written as separate chapters.

Appendix F5a
Table of Contents for Alternative Format for a Thesis
(Main headings and subheadings are not numbered)

TABLE OF CONTENTS		
		Page
ABSTRACT		ii
ABSTRAK		iv
ACKNOWLEDGEMENTS		vii
APPROVAL		viii
DECLARATION		ix
CHAPTER		
1	INTRODUCTION	1
2	LITERATURE REVIEW	5
	Sub-heading 1	5
	Sub-subheading 1	7
	Sub-subheading 2	10
	Sub-heading 2	15
	Sub-heading 3	21
	Sub-subheading 1	22
	Sub-subheading 2	25
	Sub-subheading 3	31
	Sub-heading 4	33
3	MATERIALS AND METHODS / METHODOLOGY	38
	Sub-heading 1 (e.g., Materials)	38
	Sub-heading 2 (Method 1)	42
	Sub-heading 3 (Method 2)	45
	Sub-heading 4 (Method 3)	47
	Sub-subheading 1	48
	Sub-subheading 2	50
	Sub-subheading 3	52
	Sub-heading 5 (Method 4)	55
	Sub-heading 5 (Method 5)	58
	Sub-subheading 1	58
	Sub-subheading 2	63
4	TITLE 1	70
	Article 1	70
	Copyright permission/ Acceptance letter	94

5	TITLE 2	95
	Article 2	95
	Copyright permission/ Acceptance letter	116
6	*TITLE 3	117
	Article 3	117
	Copyright permission/ Acceptance letter	138
7	*TITLE 4	139
	Article 4	139
	Copyright permission/ Acceptance letter	158
8	CONCLUSION	159
	SUMMARY AND LINKS OF ARTICLES (1-4)	
	SIGNIFICANT FINDINGS/CONTRIBUTIONS	
	RECOMMENDATIONS	
	REFERENCES/BIBLIOGRAPHY	163
	APPENDICES	180
	BIODATA OF STUDENT	187

Appendix F5b
Table of Contents for Alternative Format for a Thesis
(Main headings and subheadings are numbered)

TABLE OF CONTENTS		
ABSTRACT		Page ii
ABSTRAK		iv
ACKNOWLEDGEMENTS		vii
APPROVAL		viii
DECLARATION		ix
 CHAPTER		
1	GENERAL INTRODUCTION	1
2	LITERATURE REVIEW	5
2.1	Sub-heading 1	5
2.1.1	Sub-subheading 1	7
2.1.2	Sub-subheading 2	10
2.2	Sub-heading 2	15
2.3	Sub-heading 3	21
2.3.1	Sub-subheading 1	22
2.3.2	Sub-subheading 2	25
2.3.3	Sub-subheading 3	31
2.4	Sub-heading 4	33
3	MATERIALS AND METHODS/ METHODOLOGY	
3.1	Sub-heading 1 (e.g. Materials)	38
3.2	Sub-heading 2 (Method 1)	42
3.3	Sub-heading 3 (Method 2)	45
3.4	Sub-heading 4 (Method 3)	47
3.4.1	Sub-subheading 1	48
3.4.2	Sub-subheading 2	50
3.4.3	Sub-subheading 3	52
3.5	Sub-heading 5 (Method 4)	55
3.6	Sub-heading 5 (Method 5)	58
3.6.1	Sub-subheading 1	58
3.6.2	Sub-subheading 2	63
4	TITLE 1	70
	Article 1	70
	Copyright permission/ Acceptance letter	94

5	TITLE 2	95
	Article 2	95
	Copyright permission/ Acceptance letter	116
6	*TITLE 3	117
	Article 3	117
	Copyright permission/ Acceptance letter	138
7	*TITLE 4	139
	Article 4	139
	Copyright permission/ Acceptance letter	158
8	CONCLUSION	159
	8.1 SUMMARY AND LINKS TO ARTICLES	
	8.2 SIGNIFICANT FINDINGS/ CONTRIBUTIONS	
	8.3 RECOMMENDATIONS	
	REFERENCES/BIBLIOGRAPHY	164
	APPENDICES	181
	BIODATA OF STUDENT	188

Additional chapters including those containing unpublished results may be added, if necessary, before the Conclusion.

The page numbers indicated above is an estimate and can vary slightly as long as the thesis does not exceed 150 pages for a Master's thesis, and 240 pages for a PhD thesis, excluding tables, figures and appendices.

*A minimum of two (2) articles are required for a Master's thesis, and four (4) for a PhD thesis. Data published in the articles must not overlap.

The introductory chapter should include thesis aims, scope and outline of each manuscript.

Caution:

- i. Articles accepted/published must be original and should normally be in citation-indexed journals. Review articles are not considered as articles that count towards thesis submission;
- ii. Should the examiners find errors in published articles submitted using this format, the thesis will normally have to be resubmitted and likely Layout Style 2 will be used;+
- iii. Ensure that the examiners are able to see the coherence and integration of the thesis when writing the Introduction, Literature Review and Conclusion.

Appendix G1

Layout of a Chapter (where main headings and subheadings are not numbered)

CHAPTER NUMBER

TITLE OF CHAPTER

There may be a preamble at the beginning of a chapter. The purpose may be to introduce the themes of the main headings.

Main heading no. 1
(Primary level, bold and centred)

Subheading no. 1 (Secondary level)

There should be at least two subheadings to justify having subheadings.

Subheading no. 2 (Secondary level)

All first letters of principal words are capitalised and the subheading is typed flush with the left margin.

Tertiary heading no. 1
(Under Subheading no. 2)

Tertiary level headings are indented five spaces. There should be at least two tertiary level headings to justify having tertiary level headings.

Tertiary heading no. 2
(Under Subheading no. 2)

Tertiary headings and subsequent headings should not be listed in the Table of Contents.

Appendix G2
Layout of a Chapter (where main headings and subheadings
are numbered)

CHAPTER 2

TITLE OF CHAPTER

There may be a preamble at the beginning of a chapter. The purpose may be to introduce the themes of the main headings.

2.1 Main heading no. 1
(Primary Level Numbering)

2.1.1 Subheading no. 1 (Secondary level numbering)

There should be at least two subheadings to justify having subheadings.

2.1.2 Subheading no. 2 (Secondary level numbering)

All first letters of principal words are capitalised and the subheading is left justified.

2.1.2.1 Tertiary heading no. 1
(Under Subheading no. 2)

There should be at least two tertiary headings to justify having tertiary headings.

2.1.2.2 Tertiary heading no. 2
(Under Subheading no. 2)

Tertiary and subsequent headings should not be listed in the Table of Contents.

Appendix H1
Sample of a Table (without vertical lines)

Table 6 (or Table 3.2). Number of visitors according to participation in different activities

Activity	No. of participants (N=96)	NA
Wildlife sighting	-	96
Fishing	-	96
Photography	92 (95.8)	4
Camping	-	96
Picnicking	47 (49.0)	49
Visiting waterfall	96 (100)	-
Sightseeing and nature observation	84 (87.5)	12
Bird watching	4 (4.2)	92
Visiting historic sites	50 (52.1)	46

Note: Figures in parentheses indicate percentage of N
NA: Not applicable

Appendix H2
Sample of Table (with vertical lines)

Table 6 (or Table 3.2). Number of visitors according to participation in different activities

Activity	No. of participants (N=96)	NA
Wildlife sighting	-	96
Fishing	-	96
Photography	92 (95.8)	4
Camping	-	96
Picnicking	47 (49.0)	49
Visiting waterfall	96 (100)	-
Sightseeing and nature observation	84 (87.5)	12
Bird watching	4(4.2)	92
Visiting historic sites	50(52.1)	46

Note: Figures in parentheses indicate percentage of N

NA: Not applicable

Appendix I
Samples of Figures

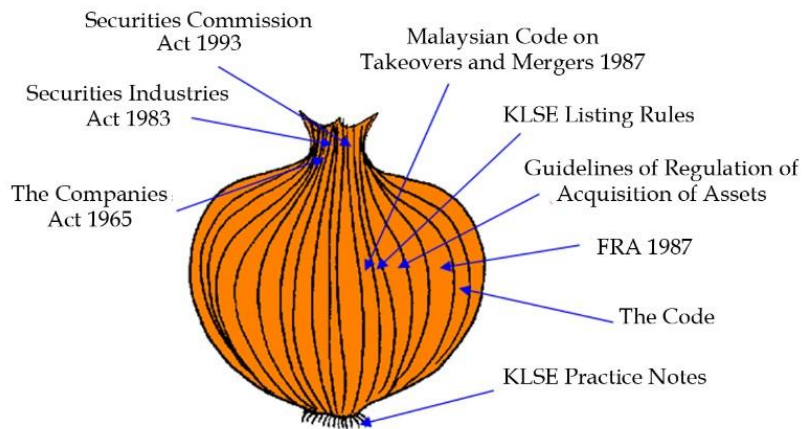


Figure 1 (or Figure 1.1). The Corporate Governance Framework in Malaysia – The Onion Model
(Source: Hashanah Ismail, 2005)

Example of a Graph

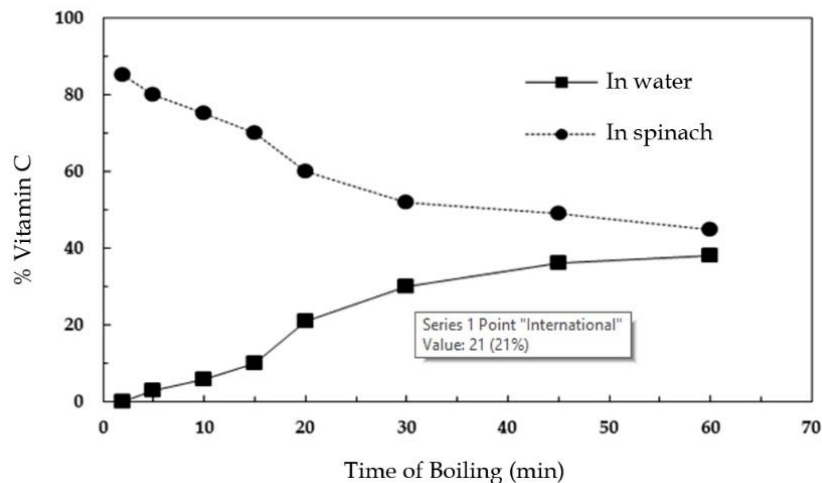


Figure 12 (or Figure 4.5). Effect of Boiling on Leaching of Vitamin C from Spinach

Example of a Pie Chart

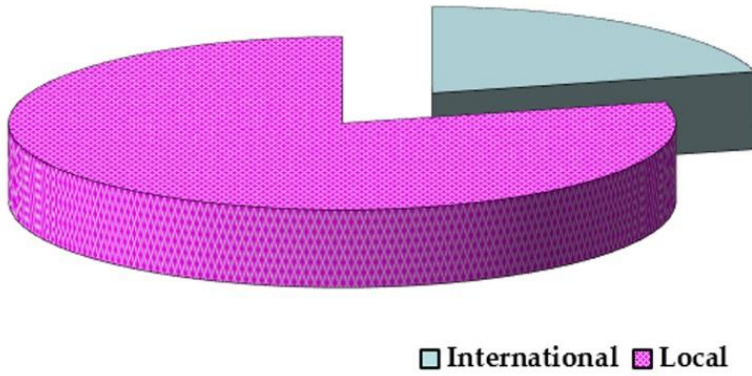


Figure 3 (or Figure 2.2). Number of Postgraduate Students at Universiti Putra Malaysia by Group.

Appendix J1

Examples of Reference Format

For details on the specific style of a particular discipline, see the reference books named in each of the examples in Appendix J2. For more general advice, the following examples will be helpful. The titles of journal articles may be abbreviated based on convention (e.g., *J. Mol. Biol.*) but this style must be maintained throughout the List of References/ Bibliography.

Journal article

Type 1:

Chan, T.K., Herlina, S. and Ruangsap, B. 1993. Cloning of promoter sequences from *Escherichia coli*. *Journal of Molecular Biology* 45: 567-575.

Type 2:

Chan, T.K., Herlina, S. and Ruangsap, B. (1993). Cloning of promoter sequences from *Escherichia coli*. *Journal of Molecular Biology* 45: 567-575.

Type 3:

Chan, T.K., Herlina, S. and Ruangsap, B. Cloning of promoter sequences from *Escherichia coli*. *Journal of Molecular Biology* 1993; 45: 567-575.

Please note that the Type 1 (above) format is used for the following examples.

Monograph

Turner, H.N., and Young, S.S.Y. 1969. *Quantitative Genetics in Sheep Breeding*. Ithaca: Cornell University Press.

Book chapter

Chan, T.K. 1992. Plasmids of enterobacteria. In *Pathogenesis of Bacterial Infections*, ed. A. Ramirez, and S. Aquino, pp. 235-243. Kuala Lumpur: Protea Press.

Multiple sources

If the student is making a statement and would like to cite several authorities, this should be arranged in reverse chronological order. Many examiners prefer the most recent to be first, as in this example:

Research has illustrated the emphasis on better understanding of volatility (Campbell et al., 2001; Duffee, 1995; Cheung and Ng, 1992; Christie, 1982).

If the student is using a source with more than two authors, he or she should provide all names in the text the first time, and for all later entries, “et al.” (for APA, see Appendix J2), “and others” (for MLA), or “and colleagues” (for ASC).

Personal communications

Personal communications should be mentioned in the text in the following form: (Arfah Salleh, Dean of the Graduate School of Management, Universiti Putra Malaysia, pers. comm. 20 August 2005). Note that email is considered a form of personal communication and should be so referenced (Aini Ideris, Dean, School of Graduate Studies, Universiti Putra Malaysia, pers. comm. 1 September 2005). Also note that the professional affiliations of the authors are included.

Internet citation

For a journal article viewed in its electronic form:

Van den Bos, G., Knapp, S., and Doe, J. 2001. Role of reference elements in the selection of resources by undergraduates [Electronic version]. *Journal of Bibliographic Research*, 5: 117-123.

For a stand-alone document with no given author and no date:

GVU's 8th WWW user survey. N.d. Retrieved 20 August 2005 from http://www.cc.gatech.edu/gvu/user_surveys/survey-1997-10/

For a university document:

Vice President, 2005. University of Calgary Research Policies and Procedures Handbook. http://www.ovpr.uga.edu/rpph/rph_misn.html. Retrieved 23 February 2005.

Thesis/Dissertation

Chin, Y. 2004. *The Problems with Floating Exchange Rates*, PhD Thesis, Universiti Putra Malaysia.

or

Bledisloe, Y. 2005. *Developments in Pre-School Education, 1946-2004*, University of Otago, New Zealand.

Reports

Type 1:

Title of report. Date. Controlling organisation, Publisher: Place of Publication.

Water Quality. 2004. Californian Board of Applied Sciences. Extension Services: Los Angeles.

Type 2:

Author, Title of report. Controlling organisation, Publisher: Place of Publication. Date.

Morgan I.A., *Prison Reform in Queensland*. Society for the Protection of Civil Liberty. Integrity Press: Brisbane. 2005.

Type 3:

Organisation responsible, Title of report. Publisher. Place of Publication. Date.

World Health Organisation. *Energy and Protein Requirements*; WHO Technical Report Series N811: Geneva, 2004.

Secondary citations

Use these for emergencies only, as some examiners penalise them ruthlessly. It is the student's responsibility to go to the original source, since the person using the quotation may have left out a "not" or a zero. One leading international university instructs external examiners to fail or at least ask for a resubmission from any student who uses more than three secondary quotations. On the rare occasions when it is impossible to obtain and so use the original, provide the secondary source in the list of references. Name the original in the text, and cite the secondary source. For example, if Coastland's work is cited in Brown et al., and you did not read Brown et al., use this format:

In the text:

As Coastland shows (as cited in Brown, Green and Black, 2005)...

In the reference list, provide only the source you used (According to APA; the order will alter in other styles. See Appendix J2):

Brown, A.B., Green, C.D., Black, L. 2005. New paradigms in communication research, *Association of Business Communication Quarterly*, 43: 48-64.

Appendix J2

Samples of Commonly Used Reference Formats

I. American Psychological Association (APA)

From the 6th edition of the *Publication Manual of the American Psychological Association*, (APA) 2010, used in management, the social sciences and education. For detailed and specific information, refer to the *APA Publication Manual* or visit www.apastyle.org.

Book

Moore, W. K. (2004). *Malaysia: A Pictorial History 1400-2004*. Kuala Lumpur: Archipelago Press.

Book chapter

Pratt, D. (1998). The Role of Religion. In M.C. McLaren (Ed.), *Interpreting Cultural Differences* (pp. 86-96). Norfolk: Peter Francis Publishers.

Journal article

Jones, B. C. (1998). Suggestions for better referencing. *Journal of Business Communication*, 289(3): 42-45.

Conference paper presented but not published in proceedings

Wilkins F. G. *Structure of Compounds*. Paper presented at the meeting of the Canadian Chemical Association, Ontario. June 2005.

Conference paper published in proceedings

Schnase, J. L., & Cunnius, E. L. (Eds.). (1995). Proceedings from CSCL '95: *The First International Conference on Computer Support for Collaborative Learning*. Mahwah, NJ: Erlbaum.

Newspaper and non-scientific magazines article

Vick, Karl (2012, December 24). Big Brothers. *Time*, 180, 20-24.

Report with no named author

Air Quality Aspects of the Development of Offshore Oil and Gas Resources (1994). California Air Resources Board: Sacramento, CA.

Unpublished Thesis/dissertation

Wong, T. L. (2005). *Changes in Chinese Negotiation Skills*. (Unpublished doctoral dissertation). University of Nottingham, Malaysia.

Article from an Online Periodical with DOI Assigned

Yiannis Kouropalatis, Paul Hughes, Robert E. Morgan, (2012) "Pursuing "flexible commitment" as strategic ambidexterity: An empirical justification in high

technology firms", *European Journal of Marketing*, Vol. 46 Iss: 10, pp.1389 – 1417. Doi: [10.1108/03090561211248099](https://doi.org/10.1108/03090561211248099)

Blog (Weblog) and Video Blog Post

S Postaer. (2013, July 1). Clothes to die for: violence against women in fashion advertising. [Web log comment]. Retrieved from <http://godsofadvertising.wordpress.com/>

Sociology Video Blog #5 [Video file]. Retrieved from <http://www.youtube.com/watch?v=lqM90eQi5-N>

II. The Chicago Style

Sometimes called the Turabian system after an earlier editor, this comes from *The Chicago Manual of Style*, 16th ed., The University of Chicago Press, 2003. It is used in the arts and humanities and other social science disciplines. The list of sources is called a "Bibliography" and not "References." Initials or given names are used, according to the title page of the source. See The Chicago Manual of Style Online at http://www.chicagomanualofstyle.org/tools_citationguide.html for more information.

Book

Doniger, Wendy. *Splitting the Difference: Gender and Myth in Ancient Greece and India*. Chicago: University of Chicago Press, 1999.

Book chapter

Pratt, Douglas. The Role of Religion in *Interpreting Cultural Differences* ed. Margaret McLaren. Norfolk, U.K.: Peter Francis Publishers.

Journal article

Knight, Hazel. 2004. Plain Language Research in Sri Lanka, *Rapport: News about Plain Language*. 13: 4-5.

Conference paper presented but not published in proceedings

Nass, Clifford. Why researchers Treat On-line Journals like Real People. Keynote address, annual meeting of the Council of Science Editors, San Antonio, TX, May 6-9, 2000.

Conference paper published in proceedings

Naharajah, S. Common Carcinogens, In *Proceedings of the International Congress on Carcinogenic Compounds*, Perth, Australia, Sept. 3-5, 2005, ed. Johnson, B. The Scientific Press: Sydney. 2005.

Newspaper and non-scientific magazines article without named author

Reuters, Coping with Bomb Blasts. *Times* (London) June 12, 2005, pp. 3-4. (Note: The article "The" is dropped if part of the newspaper's name is in English, but the article is retained if part of the newspaper's name is in another language)

Report with no named author

California Air Resources Board. *Air Quality Aspects of the Development of Offshore Oil and Gas Resources*, Sacramento, CA: CARB, 2004.

PhD dissertation

Yoon Chung Sin. Corporate Spin-offs and the Determinants of Stock Price Changes in Malaysia. PhD Thesis, Universiti Putra Malaysia. (Note: The thesis title is not italicised).

Internet citation

Stolberg, S.G, Bid to Absolve Saccharin is rebuffed by US Panel, 2004, <http://www.junkscience.com/news/sac2.html> (accessed 2 Aug. 2005).

Blog post

Postaer, Steffan. *Clothes to die for: violence against women in fashion advertising* (blog). <http://godsofadvertising.wordpress.com/>.

III. Council of Biology Editors (CBE)

From *Scientific Style and Format: The CBE Style Manual for Authors, Editors, and Publishers*, 7th ed., 2006. CBE is used primarily in the biological sciences. Note that for in-text citation, this format does not have a comma (e.g., Voet and Voet 1990). In the reference list, surnames with either full given names or with initials can be used. Since some sources give initials only, and a thesis writer needs to be consistent, it is safest to use initials in the thesis reference list. No comma is inserted between the surname and the initials. Also, in contrast to other styles, the book or journal title is not italicised.

Book

Voet D.; Voet JG. *Biochemistry*. New York: J. Wiley; 1990. 1223p.

Book chapter

Kuret JA, Murad F. Adenohypophyseal hormones and related substances. In: Gilman AG, Rall TW, Nies AS, Taylor P, editors. *The pharmacological basis of therapeutics*. 8th ed. New York: Pergamon; 1990. p. 1334-60. (Note: no indentation)

Journal article

Elial EL. Stereochemistry since LeBel and van Hoff: Part II. *Chemistry* 49 (3):8-13 (2005).

Conference paper presented but not published in proceedings

Nass, Clifford. Why researchers Treat On-line Journals like Real People. Keynote address, annual meeting of the Council of Science Editors, San Antonio, TX, May 6-9, 2000.

Conference paper published in proceedings

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Thesis/Dissertation

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IV. Modern Language Association (MLA)

This information comes from the 7th edition of the *MLA Handbook for Writers of Research Papers*, 2009; used primarily by students in languages and literature. The title of the list of references is "Works Cited." Notice that authors' given names are included. The first author's name is listed with the surname first, followed by the given name, but second and subsequent authors have their given names listed before their surnames. If there is no first author, as with some documents such as reports, the title of the report (excluding "A", "An" and "The") is used. Publishers' names are abbreviated to the first word. The date comes at the end. For further useful information on MLA referencing, see <http://www.mla.org/style>.

Book

Okuda, Michael, and Denise Okuda. *Star Trek Chronology: The History of the Future*. New York: Pocket, 1993. Print.

Book chapter

Belson, Thomas. "Coping with verb groups in learning English." *Language Learning Developments*. Ed. M. A. Cook. Hong Kong: Prentice-Hall, 2003. Print.

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Maura Jane Farrelly, "Catholicism in the Early South," *Journal of Southern Religion* 14 (2012): n. pag. Web. 16 Aug. 2013

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Wemple, Eric "Rolling Stone Stands By Controversial Cover." *Eric Wemple: A Reported Opinion Blog on News Media*. The Washington Post, 17 July 2013. Web. 18 July 2013

V. American Chemical Society (ACS)

The ACS Style Guide, 3rd ed., 2006, offers three different types of referencing. The following examples show the format the *ACS Style Guide* prefers for theses in the chemical sciences. The list of references is arranged alphabetically by the first given word, name or report title, as the case may be. An author writing alone comes before that author jointly writing with others. If an author has produced

two pieces of research in one year, the one that comes first alphabetically is labelled "a" (e.g., 2005a), the following "b" and so on. The journal title is abbreviated. If the abbreviation is not obvious, refer to the *The ACS Style Guide*, pp. 215-229. For an online version of *The ACS Style Guide*, see <http://pubs.acs.org/isbn/9780841239999>.

Book

Shore J.B. *Technical Terms in Biotechnology*; 3rd ed.; Wiley & Sons: New York. 2004.

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Thatroff, P.K. Carcinogenic Compounds. In *Chemical Carcinogens*; 2000. 2nd ed.; American Chemical Society: Washington, DC, pp 49-78. (Note: There is no full stop after pp – or, for that matter – after p in the ACS style)

Journal article

Betteridge, P.W., Carruthers, J.R., Cooper, R.I., Prout K., D.J WatkinJ. *Appl. Cryst.*, 2003. **36**: 1487-1489.

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Wilkins F.G. *Structure of Compounds*. Paper presented at the meeting of the Canadian Chemical Association, Ontario. June 2005.

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Newspaper and non-scientific magazine articles

Smith, J.B. Pollution Problems. *Time*, August 22, 2005, pp 3-4.

Report with no named author

Air Quality Aspects of the Development of Offshore Oil and Gas Resources; California Air Resources Board: Sacramento, CA, 1994.

PhD dissertation

Kamaliah Binti Sirat. PhD Thesis. The Reactions of β -Carotene with Cobalt(II) Ions: Product Isolation and Characterization, and Kinetic Studies. Universiti Putra Malaysia, 2004. (Note that the thesis title is not in italics.)

Internet citation

Stolberg, S.G, 1997, Bid to Absolve Saccharin is rebuffed by US Panel, <http://www.junkscience.com/news/sac2.html> (accessed 5 August 2004).

RECOMMENDED READING LIST

There are many books that can help with the writing of a thesis, especially those listed below. *How to get a PhD* by Phillips and Pugh (1994) is highly recommended.

- American Psychological Association. (2001). *Publication Manual of the American Psychological Association*. (5th ed.). Washington DC: American Psychological Association.
- Coakes, S.J. and Steed, L.G. (2003). *SPSS – Analysis without anguish*. Brisbane: Wiley & Sons.
- Council for Biology Editors, The. (1994). *Scientific style and format: The CBE manual for authors, editors and publishers* (6th ed.), Cambridge: Cambridge University Press.
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- Garson, D.G (2002). *Guide to writing empirical papers, theses and dissertations*, New York: Marcel Dekker.
- Gibaldi, J. and Achtert, W.S. (1996). *The MLA handbook for writers of research papers, theses and dissertations*. (4th ed.) New York: Modern Languages Association.
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- Sternberg, D. (1981). *How to complete and survive a doctoral dissertation*. New York: St. Martin's Press.
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