CHAPTER 1

GENERAL REQUIREMENT OF PROJECT REPORT

1.1 Introduction

The aim of this guide is to help students of Universiti Tunku Abdul Rahman in the preparation of their project report. Students are advised to acquaint themselves with the recommendations of this guide in the early stages of preparation, even though some of the recommendations apply only to the final stages. The Guide also provides information for supervisors whose responsibilities include ensuring that the candidates follow its recommendations.

* A project report which does not follow the approved format will not be accepted and the degree will not be conferred until an acceptable standard has been met.

1.2 Project report preparation

The project report must be written in British English. The project report must form a distinct contribution to the knowledge of the subject and afford evidence of originality. It must be of a satisfactory literary standard and must
be suitable for publication as a project report of Universiti Tunku Abdul Rahman.

The project report must consist of the student's account of his/her own research. A candidate will not be permitted to submit a project report consisting wholly of work for which a degree has been conferred on him/her in this or any other university.

A project report must be submitted in a form that can be reproduced in a clear and usable format.

Close attention should be paid to the following criteria:

i. The text and all illustrative materials should be clear and error free;

ii. Good quality paper should be used;

iii. Margins on each page should be as specified in this Guide.

Two soft bound copies must be submitted to the Department. The report, including tables and figures, should not exceed 100 pages overall (Inclusive of Appendices) and both copies should be bound with soft covers. Upon
examination both the soft bound copies will be returned to the student. After making the necessary corrections, the student is required to submit ONE copy of CD (PDF file) and hardcopy of Declaration form (Appendix D), Approval (Appendix E) and Permission sheet (Appendix F) for the university and hardcopy or CD for the respective supervisor (if required). An abbreviated version of the degree, your name and the year should be printed on the stem of the hard bound copy of your project report.

1.3 Technical specifications

1.3.1 Collation

It is the student's responsibility to prepare and assemble all materials for the project report, and to have the pages of the project report in correct order.

1.3.2 Paper

The project report must be written on one side only of good quality white bond paper (usually of 80g weight) of A4 size (210mm x 297mm). The same grade of paper must be used throughout the project report.
1.3.3 Pagination

All pages should be numbered right flushed at the bottom margin. Page numbers should appear by themselves and should not be placed in brackets, hyphenated or accompanied by other decorative devices. Print text or figures on only one side of each sheet. Only original word-processed copy or good and clean photocopies are acceptable.

Pages should be numbered consecutively throughout the project report, including pages for tables, figures and appendices. Each appendix should be identified separately using an uppercase letter beginning with A. The pages of the appendices should also be numbered accordingly.

The Preliminary pages preceding Chapter 1 must be numbered in Roman numerals (i, ii, iii,…). The Title Page should not be numbered though it is counted as page i. Page 1 begins with the first page of the Introduction (or Chapter 1) but not numbered. Subsequent pages should be numbered beginning with page 2. Each chapter should begin on a new page.
1.3.4 Production of Manuscript

Project reports must be produced on a word processor with printing done on a high quality printer.

1.3.5 Spacing

Double line spacing must be used in between lines. However, four line spacing must be used between paragraphs and sections. Single spacing is permitted within:

i. Explanatory footnotes

ii. Quotations longer than three lines set in a block

iii. References (except between entries)

iv. Multi-line captions (tables, figures)

v. Appendices

vi. Headings or subheadings for Tables and Figures

A new paragraph should be at least two lines at the bottom of the page. Otherwise, the new paragraph should start in a new page.

1.3.6 Margins

The top, bottom and right margins should be not less than 1" or 2.5 cm in
width, and the left-hand margin should be 2” or 5 cm in width to allow for loss
in binding. Right margin of the text should be justified.

1.3.7 Typeface and Font Size

The font size should be 12 point, and the same typeface must be used
throughout the text, including heading and page numbers. Font should not be
scripted or italicized 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. Equations and formulae must be typed.

Some appropriate fonts for project report are:

i. Arial

ii. Times New Roman

1.3.8 Correction of Errors

The project report must be free of typographical errors. Corrections made in
ink or with opaque fluid are not acceptable. If a neat erasure cannot be made
the page must be re-typed. Deletions must not be made by crossing out or
striking out letters or words. The typed line must be continuous. If the word or
words cannot be erased clearly and neatly with proper spacing, the whole line, the paragraph, or the whole page must be re-typed.

Additions of words or phrases must **not** be typed between lines or inserted by hand. The whole page must be re-typed to incorporate the additions. Pages which are obviously insert pages are not acceptable. The surrounding pages should be re-typed to incorporate the material.

### 1.3.9 Binding

The project report should be bound in NAVY BLUE hard cover. The binding should be as for a book in which pages are permanently secured.

The following should be lettered in Gold with 18 point font size from the head to the foot of the project report **spine** (Refer to Appendix A)

1. Name of candidate
2. Abbreviated degree (e.g. BSc. (Hons) Biotech.)
3. Year of submission

The following particulars should be provided on the project report **cover** using
Gold block font with font size 18 point. Refer to Appendix A:

i. Title of project report

ii. Name of candidate

iii. Degree

iv. Name of University

v. Year of submission
Chapter 2

Format of Project Report

Generally, project report consists of three major parts: preliminary pages, text or main body and ending pages.

A) Preliminary Pages

Include title page, dedication (optional), abstract, acknowledgement, declaration sheet, approval sheet, permission sheet, table of contents, list of tables, figures, and abbreviations

B) Text or Main Body

Divided into chapters and sections

C) Ending Pages

Consist of references and appendices.
<table>
<thead>
<tr>
<th>Items</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title Page</td>
<td>Not to be paginated but counted as i</td>
</tr>
<tr>
<td></td>
<td>Subsequent pages are paginated and are numbered consecutively.</td>
</tr>
<tr>
<td>Dedication (if any)</td>
<td>Appendix B</td>
</tr>
<tr>
<td>Abstract</td>
<td>Appendix C</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td></td>
</tr>
<tr>
<td>Declaration</td>
<td>Appendix D</td>
</tr>
<tr>
<td>Approval Sheet</td>
<td>Appendix E</td>
</tr>
<tr>
<td>Permission Sheet</td>
<td>Appendix F</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>Appendix G</td>
</tr>
<tr>
<td>List of Table(s)</td>
<td>Appendix H</td>
</tr>
</tbody>
</table>

Below is the arrangement of various pages in a project report
2.1 Title Page

Title should describe the content of the project report accurately and concisely.

The title page should include:

i. The title page should look exactly like the sample on Appendix B.

ii. Full title of project report (uppercase)

iii. Full name of author (uppercase)

iv. Name of institution to which the project report is submitted
v. Name of faculty
vi. Degree of which the project report is submitted
vii. Month and year of submission
viii. This page is counted but not numbered (it counts as page i but should not have a page number).

2.2 Abstract

An abstract is a concise summary of the project report, intended to inform prospective readers about its content. It usually includes a brief description of the research, the procedures or methods, and the results and conclusions. An abstract should not include internal headings, parenthetical citations of items listed in the reference section, diagrams, or other illustrations. The abstract should be in one paragraph and less than 300 words. In short, an abstract actually points out what has been done, what was found and what can be concluded.

**Remember: an effective abstract gives information about the quality of the research as well as the investigator.**

An example of abstract is shown in Appendix C.

2.3 Acknowledgement
Acknowledgement is used to express the author’s appreciation for guidance and assistance from individual(s) and institutions.

2.4 Table of Contents

Contains the list of all the chapter titles in upper case, preceded by their numbers in Arabic numerals. Subheadings should be in title case (Refer to Appendix G).

Not more than three levels of subheadings are allowed in the Table of Contents (chapter names are level 1 headings, subheadings of a chapter are level 2 headings, subheadings of subheadings are level 3). Subsections of chapters may be numbered with Arabic numerals.

i. The Table of Contents should follow closely the sample on Appendix G.

ii. The heading Table of Contents must appear at the top of the first page. The heading must be bold, centered, and without punctuation.

iii. List chapter titles and at least the first or second order subdivisions. Make sure that chapter and section titles are worded exactly as they appear in the body of the project report.
iv. Single space each entry, but double space between entries.

v. Separate titles from page numbers with right-justified tabs and dot leaders. **Do not use periods to separate titles and page numbers.**

vi. These pages are counted and numbered in lowercase Roman numerals.

### 2.5 List of Tables

Project reports that contain tables should provide a List of Tables (Appendix H). The list will show the exact title of captions of all tables in the text, together with the beginning page number of each table. Tables should be numbered consecutively within each chapter.

The following guidelines apply:

i. The table number and accompanying title is placed **above** the body of the table and left justified (Appendix I).

ii. Table titles should be focused, descriptive, and short.

iii. Use a solid line above and below the body of the table, thus delimiting the table.

iv. Use horizontal lines within the heading sections to encompass several common elements.
v. Excessively large and complex tables that require multiple pages are discouraged, but if necessary, secondary pages should state “Table X continued” and repeat the headings.

vi. Table footers are used to explain symbols, give notes on a statistical analysis, define abbreviations, amplify certain aspects of the table, or recognize sources.

2.6 List of Figures

Project reports that contain figures should include a List of Figures (Appendix H). The list of figures includes graphs, photographs, charts and printed images. Figures should be numbered consecutively within each chapter.

The following guidelines apply:

i. Figure captions should be placed immediately below the figure. This includes the figure number (e.g., Figure 1.1) followed by a concise, descriptive statement. The explanatory text should always precede the figure (Appendix J).

ii. Color can be used in graphs, maps, photos, etc.

iii. Glossy prints, photomicrographs, or other figures not produced on the regular project report paper should be mounted.
Figures, tables, and illustrations must be self explanatory. Generally a figure, table, or illustration will occupy a separate page of the project report. However, if it is integrated within a page of text, there must be sufficient space before and after to clearly set it apart from the text. The text should cite a figure or table when those data are noted. For example: “Graduate enrollment at Missouri State University has increased each of the last five years (Figure 1.1).”

2.7 List of Abbreviations

When many abbreviations and/or symbols are used, List of Abbreviations with appropriate definitions should be included for the sake of clarity. Such lists should be included following the List of Tables and List of Figures. When abbreviations or other symbols are used, they should be uniform and consistent throughout the project report. This list serves as ready reference to readers not familiar with the abbreviation. The list should be sorted in alphabetical order. Universally recognized scientific symbols (cm, mm, kg, etc.) need not be listed. Appendix K shows the example.
2.8 Text of Project Report

The major parts of a project report may contain such subjects as introduction, general argument, description of experimental procedures, research methods, discussion, summary, conclusions, recommendations, and other pertinent topics that are necessary for a complete understanding on the part of a sophisticated or professional reader.

i. The chapter and section titles should be the same as the headings listed in the Table of Contents. The pages are counted and numbered in Arabic numerals. The text begins four lines below this heading.

ii. The text must be double spaced. (Note that the heading lines are single spaced.)

iii. The pages are counted and numbered in Arabic numerals.

iv. First line of each paragraph should not be indented.

2.9 Headings in Text

Chapter headings must be bold and centered.

The chapter number and title must be separated and double-spaced as shown in the example below:
CHAPTER 1

INTRODUCTION

Headings must not be larger than 12 points.

Headings and subheading must be double spaced.

2.10 Introduction

Introduction is the introductory chapter (background information) that indicates the problem to be addressed and its importance and validity. It sets forth the context, the hypotheses to be tested and the research objectives to be attained.

2.11 Literature Review

A literature review surveys scholarly articles, books and other sources (e.g. dissertations, conference proceedings) relevant to a particular issue, area of research, or theory, providing a description, summary, and critical evaluation of each work. The purpose is to offer an overview of significant literature published on a topic. However, a literature review is not a summary of works of different authors. Justification is given in this section for the use of specific
solution techniques or problem solving procedures in your work.

2.12 Materials and Methods

Descriptions of materials, equipment, procedures, techniques, calculations and calibration plots employed throughout the study. Limitations, assumptions and range of validity of the methods are also included in this section. This information is required to allow the reader to assess the believability of your results, and also is needed by another researcher to replicate your experiment.

2.13 Results

The results are actual statements of observations, whether positive or negative. It can be reported in the form of figures, tables, statistics or text. Sufficient details should be presented so that others can draw their own inferences and construct their own explanations. You can break up your results into logical segments by using subheadings.

2.14 Discussion

A discussion is based on the results obtained from the study in relation to the hypotheses and is not simply a restatement of the results. It highlights the main
finding, their significance and implications. The discussion section should be a brief essay in itself, answering the following questions:

- What are the major patterns in the observations?
- What are the relationships, trends and generalizations among the results?
- What are the likely causes (mechanisms) underlying these patterns?
- Is there agreement or disagreement with previous work?
- How do the obtained results relate to your hypothesis/problem statement in the introduction?
- Include possible explanations related to your results (must be supported by references).
- What are the contributions of your findings to your field of study?

Outline and discuss also the future research work in this section. The future work can be arisen from the results that you generated or work that you would like to undertake to confirm your hypothesis.

### 2.15 Conclusions

A summary which highlights the most important observations and outcomes of the study upon which a conclusion is drawn in line with the objective set. It
also outlines the significance and contribution of your work to the area of your study.

### 2.16 Chapter Layout

Text in a chapter can be written into major sections and subsections. Major section is numbered as first level (e.g. 1, 2, 3,…) and subsection is numbered second level, and etc (e.g. 1.1, 1.1.1, 1.2.3,…..). Candidates should ensure that it is consistent throughout the project report and should be limited to a maximum of 4 levels.

### 2.17 References

The project report should contain appropriate documentation--that is, references to original literature relevant to the research presented in the project report.

The List of References should follow closely the sample on Appendix L.

i. The heading **References** must appear at the top of the first page. The heading must be bold, centered, and without punctuation.

ii. Begin the list of sources four spaces below the heading.

iii. Single space within each entry and double space between entries.

iv. Do not split entries over two pages. If an entire entry does not fit on one page, place the entire entry on the next page.

v. Entries are arranged according to alphabetical order.

vi. These pages are counted and numbered in Arabic numerals.

Every reference cited in the text should be listed in the List of References section that follows the main body of the project report. Likewise, citation which is not mentioned in the text should not be listed in reference section. This one-to-one correspondence between citations and listing of references is essential.

**Citations.** The citations in the text are done using the author and date system,
as illustrated in APA style. Candidates should follow closely the sample on Appendix L.

2.18 Appendices

If supplementary original data, illustrative material, a detailed derivation of equations, an extensive proof of a theorem, or a quotation too extensive for the body of the project report are included, they may be presented in appendices. Similar material should be gathered in a single appendix.

i. Number the appendices consecutively in alphabetical order (Appendix A, Appendix B...).

ii. The heading Appendix A (or B, C) and the title of the material must be bold, centered, and without punctuation.

iii. The appendix material should begin four spaces below the heading.

iv. The pages are counted and numbered in Arabic numerals.

CHAPTER 3

WRITING CONVENTION
3.1 Units of measure

Arabic numeral should be used before measurement units and should not be spelt out, e.g. 5 kg, not five kg. Exemption is given to the first word of the sentence.

3.2 Numbers

All numbers should be spelt out unless they are followed by units of measure.

Arabic numeral should be used for number 10 or more than 10. If sentence begins with a number, the number should be spelt out. e.g. “Three replicates were done for the following experiment”.
Appendix A

Spine and cover of the project report

CADMIUM BIOSORPTION USING FREE AND IMMOBILIZED BIOMASS OF ASPERGILLUS AWAMORI

YVONNE CAROLINE

BACHELOR OF SCIENCE (HONS) BIOTECHNOLOGY / BIOCHEMISTRY / BIOMEDICAL SCIENCE

FACULTY OF SCIENCE
UNIVERSITI TUNKU ABDUL RAHMAN
MAY / OCTOBER 20xx
Appendix B

Title page

CADMIUM BIOSORPTION USING FREE AND IMMOBILIZED BIOMASS OF Aspergillus awamori

By

YVONNE CAROLINE

A project report submitted to the Department of Biological Science/Chemical Science/Biomedical Science
Faculty of Science
Universiti Tunku Abdul Rahman
in partial fulfillment of the requirements for the degree of Bachelor of Science (Hons) Biotechnology/Biochemistry/Biomedical Science

May / October 20xx
Appendix C

Format of Abstract

ABSTRACT

CADMIUM BIOSORPTION USING FREE AND IMMOBILIZED BIOMASS OF Aspergillus awamori

Yvonne Caroline

The ability of free and immobilized cells of Aspergillus awamori to act as an effective cadmium biosorbent was investigated using………From the study, ……………… However, ………………
Appendix D

Declaration

DECLARATION

I hereby declare that the project report is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UTAR or other institutions.

________________________
Name
Appendix E

Approval sheet

APPROVAL SHEET

This project report entitled “CADMIUM BIOSORPTION USING FREE AND IMMOBILIZED BIOMASS OF Aspergillus awamori” was prepared by YVONNE CAROLINE and submitted as partial fulfillment of the requirements for the degree of Bachelor of Science (Hons) in Biotechnology/Biochemistry/Biomedical Science at Universiti Tunku Abdul Rahman.

Approved by:

___________________________
(Prof. Dr. ABCDEF)              Date:……………………
Professor/Supervisor
Department of Biological Science
Faculty of Science
Appendix F

Permission sheet

FACULTY OF ENGINEERING AND SCIENCE
UNIVERSITI TUNKU ABDUL RAHMAN

Date: __________________

PERMISSION SHEET

It is hereby certified that YVONNE CAROLINE (ID No: 04UEB12345) has completed this final year project entitled “CADMIUM BIOSORPTION USING FREE AND IMMOBILIZED BIOMASS OF Aspergillus awamori” supervised by __________________________ (Supervisor) and _____________________________ (Co-Supervisor) from the Department of Biological Science, Faculty of Science.

I hereby give permission to my supervisors to write and prepare manuscripts of these research findings for publishing in any form, if I do not prepare it within six (6) months from this date, provided that my name is included as one of the authors for this article. The arrangement of the name depends on my supervisors.
Appendix G

Table of Contents

TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iv</td>
</tr>
<tr>
<td>DECLARATION</td>
<td>vi</td>
</tr>
<tr>
<td>APPROVAL SHEET</td>
<td>vii</td>
</tr>
<tr>
<td>PERMISSION SHEET</td>
<td>viii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xiv</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>xvi</td>
</tr>
</tbody>
</table>

CHAPTER

1 INTRODUCTION 1

2 LITERATURE REVIEW 6

2.1 Cadmium: Occurrences in Nature 6

2.2 Major Uses and Production of Cadmium 12

2.3 Conventional (Non-Biological) Treatment Methods 14

2.4 Biological Treatment 44

2.4.1 History 44

2.4.2 Biosorption Phenomenon and Mechanism 48

2.4.3 Fungal Biomass as an Effective Biosorbent 56

2.5 Type of Heavy Metal Removal System 62

2.5.1 Free Cell System 62

2.5.2 Immobilized Cell System 65

2.6 Concluding Remarks 66
3 MATERIALS AND METHODS

3.1 Materials

3.1.1 Chemicals and Solutions
3.1.2 Microorganisms and Maintenance
3.1.3 Inoculum Preparation and Medium Composition

3.2 General Plan of the Experimental Work

3.3 Analytical Procedures

3.3.1 Dry Cell Weight Determination
3.3.2 Viable Cell Counts
3.3.3 Statistical Analysis

4 RESULTS

4.1 Effect of Different Initial Cadmium Concentrations

4.1.1 Langmuir Linear Adsorption Model
4.1.2 Comparison with Other Microbial Sorbents

4.2 Effect of Different Biomass Concentration on Biosorption of Cadmium

4.3 Cadmium Removal in Stirred Tank Reactor

4.3.1 Batch Phase
4.3.2 Continuous Phase

5 DISCUSSION

5.1 Effect of Different Initial Cadmium Concentrations

5.1.1 Langmuir Linear Adsorption Model
5.1.2 Comparison with Other Microbial Sorbents

5.2 Effect of Different Biomass Concentration on Biosorption of Cadmium

5.3 Cadmium Removal in Stirred Tank Reactor

5.3.1 Batch Phase
5.3.2 Continuous Phase

6 CONCLUSIONS

REFERENCES

APPENDICES
Appendix H

List of tables / List of figures

LIST OF TABLES / LIST OF FIGURES

<table>
<thead>
<tr>
<th>Table / Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>A Haworth projection representation of the structure of glucose (α-D-glucopyranose)</td>
<td>8</td>
</tr>
<tr>
<td>2.2</td>
<td>Section of the amylose molecule showing the repeating anhydroglucose unit</td>
<td>10</td>
</tr>
<tr>
<td>3.1</td>
<td>The effect of substrate concentration on maximum D-glucose concentration</td>
<td>11</td>
</tr>
<tr>
<td>4.2</td>
<td>The effect of enzyme dosage on reaction time</td>
<td>32</td>
</tr>
<tr>
<td>4.10</td>
<td>Production of CGTase enzyme during the batch culture of (A) Thermococcus hydrothermalis and (B) Klebsiella sp.</td>
<td>74</td>
</tr>
</tbody>
</table>
Appendix I

Example of Table layout

Table 1.1: Graduate school Enrolment at Universiti Tunku Abdul Rahman.

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>640</td>
<td>1415</td>
<td>2055</td>
</tr>
<tr>
<td>1997</td>
<td>734</td>
<td>1462</td>
<td>2196</td>
</tr>
<tr>
<td>1998</td>
<td>935</td>
<td>1792</td>
<td>2727</td>
</tr>
<tr>
<td>1999</td>
<td>991</td>
<td>1882</td>
<td>2873</td>
</tr>
<tr>
<td>2000</td>
<td>1052</td>
<td>1952</td>
<td>3004</td>
</tr>
<tr>
<td>2001</td>
<td>1080</td>
<td>2025</td>
<td>3105</td>
</tr>
<tr>
<td>2002</td>
<td>1095</td>
<td>2175</td>
<td>3270</td>
</tr>
</tbody>
</table>

1 Includes full-time and part-time students.
Appendix J

Example of Figure Layout

Figure 1.1: Graduate School Enrolment at Universiti Tunku Abdul Rahman.
Appendix K

List of abbreviations

LIST OF ABBREVIATIONS

\( g \)  

Acceleration of gravity (\(-9.8 \text{ m/s}^2\))

\( \alpha\)-D-glucopyranose  

Alpha-D-glucopyranose

BSA  

Bovine serum albumin

\( \text{Ca}^{2+} \)  

Calcium ion

C  

Carbon

C/N ratio  

Carbon-to-nitrogen ratio

\( \text{Co}^{2+} \)  

Cobalt ion

CFU  

Colony forming units

CD  

Cyclodextrin

DP  

Degree of polymerization

DEAE-cellulose  

Diethylaminoethyl-cellulose

DOT  

Dissolved oxygen tension

EC  

Enzyme commission number
Appendix L

Reference List

(i) BOOK REFERENCE

(a) Single Author
General Format

Example:

When the author and publisher are identical, use the word "Author" as the name of the publisher.
Example:

(b) Multiple Authors
When a work has up to (and including) six authors, cite all authors. When a work has more than six authors, cite the first six followed by "et al."

Examples:


(c) Corporate Author
General Format
Corporate Author. (Year). Title of book. Location: Publisher.

Example:
(d) Unknown or No Author
Begin the entry with the work’s title. Titles of books are italicized.

General Format:
Title of book. (Year). Place of publication: Publisher.

Example:

(ii) EDITED BOOK REFERENCE
General Format:
Editor, A., & Editor, B. (Eds.). (Year). Title of book. Location: Publisher.

Examples:


(iii) BOOK CHAPTER REFERENCE
General Format:

Example:

(iv) JOURNAL ARTICLE REFERENCE

(a) One Author
General Format:

Examples:

(b) Two Authors
List all authors with & preceding last author.

*Example:*

(c) More Than Six Authors
After 6th author name, use et al.

*Example:*

(v) MAGAZINE ARTICLE REFERENCE
*General Format*
Author, A. A. (Year, Month day). Title of article. *Title of Magazine, volume if given, page-numbers.*

*Example:*

(vi) NEWSPAPER ARTICLE REFERENCE
*General Format*
Author, A. (Year, Month Day). Title of article. *Title of Newspaper, pages.*

*Example:*
(x) ARTICLE IN AN INTERNET-ONLY JOURNAL

General Format

Example:

NOTE: Reference List Order
- Alphabetical by author’s name
- Chronological by same author
- Alphabetical by title

Hewlett, L. S., Baheti, J. M., Marthur, A. L.,…
Appendix M

In-text Citation

(i) One Work by One Author
When using APA format, follow the author-date method of in-text citation:

*Reference in the text:*
Walker (2000) compared reaction times …

In a study of reaction times (Walker, 2000) …

*Reference list:*

Cite by author and year only even when reference includes month or date:

*Reference in the text:*
Mak (2006) found workers are happier …

*Reference list:*

(ii) One Work by Two authors
Always cite both names every time the reference occurs in text. Use the word "and" between the authors' names within the text and use "&" in the parentheses:

*Reference in the text:*
Serlin and Lapsley (1985) discovered the problems …

A survey on the problems in … (Serlin & Lapsley, 1985)

*Reference list:*
(iii) One Work by Multiple Authors (3-5 Authors)
Cite all authors the 1st time the reference occurs; in subsequent citations, include only the surname of the 1st author followed by “et al.” and the year if it is the 1st citation of the reference within a paragraph. (et al. means and others)

Reference in the text:
Skinner, Cornell, Sun, and Harlow, 1993 did a survey on … (Use as 1st citation in text)

Skinner et al. (1993) found … (Use as subsequent 1st citation per paragraph thereafter)

Skinner et al. also found … (Omit year from subsequent citations after 1st citation within a paragraph)

Reference list:

(iv) Work Has Six or More Authors
For works with 6 or more authors, cite only the surname of the 1st author followed by “et al.” and the year for the 1st and subsequent citations.

Reference in the text:
Martin et al. (2001) studied the use of …

Reference list:

(v) Groups as Authors
If group author is readily identified by its abbreviation, then abbreviate the name in the second and subsequent citations:

Reference in the text:
1st citation:
American Psychological Association [APA], (2003)
Subsequent text citation:
(APA, 2003)

Reference list:

(vi) Works With No Author
For periodical, book, brochure or report with no author, cite the first few words of the reference list entry (usually the title of the article or book) and the year.

Reference in the text:
… (*Studies of Alcohol*, 1999).

Reference list:

(vii) Authors With the Same Surname
To avoid confusion, use initials with the last names if the reference list includes two or more authors with the same last name.

Reference in the text:
Research by J. Young (1989) revealed that . . .

Survey by E. Young (1990) proved that …

Reference list:


(viii) Personal Communication
Interviews, memos, letters, e-mail, and similar unpublished person-to-person communications should be cited as follows:

Reference in the text: 
One of Atkinson’s colleagues, who has studied the effect of the media on children’s eating habits, has contended that advertisers or snack foods will need to design ads responsibly for their younger viewers (F. Johnson, personal communication, October 20, 2004).

Reference list:
Do not include personal communications in reference list.

(ix) Secondary Sources
Name original work and (as cited in secondary source). List the secondary source in references.

Reference in the text:
Berger was attributed to have first used the term electroencephalogram (EEG) (as cited in Masterpasqua & Healey, 2003).

Original:

Reference list:

(x) Quotations
If you are directly quoting from a work, you will need to include the author, year of publication, and the page number for the reference (preceded by "p."). Introduce the quotation with a signal phrase that includes the author's last name followed by the date of publication in parentheses.

Reference in the text:
According to Jones (2004), "Students often had difficulty using APA style, especially when it was their first time" (p. 199).

Reference list:
For longer quotations (indent without “ “), and use … to indicate omitted words.

Reference in the text:
We agree with Obrue (2002), who concluded:
Neurofeedback is perhaps best viewed not as an alternative to conventional psychopharmacological agents but rather… (p. 8).

Reference list: