

Engineering Report Writing

Title Page

3.1.1 Title page

A model title page can be seen in Appendix B. A title should be brief but informative. A title page should be simple, attractive, and include the following information:

- name of the university
- name of the particular engineering school
- name and code of the course
- title of the report
- name of author(s) and ID number(s) (with the family name underlined)
- name of tutor/supervisor
- date of submission and/or date of experiment as applicable

Report Writing Style Guide for Engineering Students

4th edition

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and the Flexible Learning Centre, University of South Australia

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Abstrct

ABSTRACT

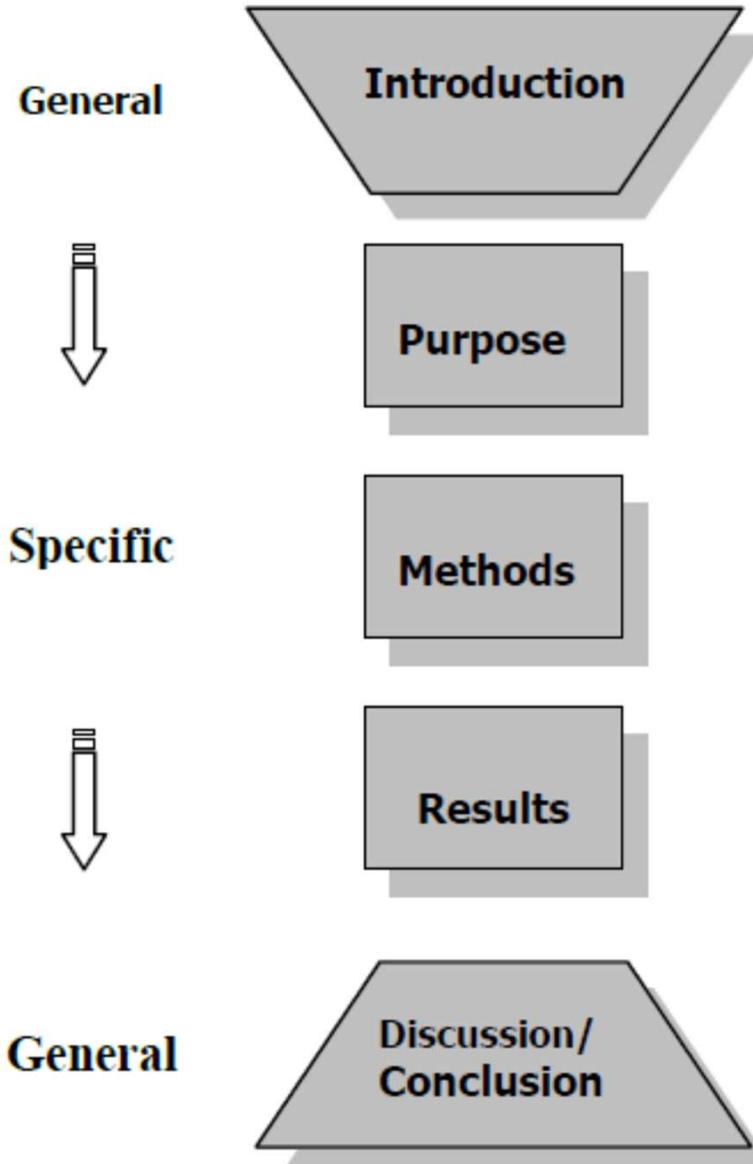
Mechanics of writing a technical report is explained in a pseudo report format. The purpose of this pseudo report is to explain the contents of a typical engineering report. It can also be used as a template for an actual engineering report. With some adaptation, the format can be extended to other type of technical writings as well.

List of Figures and Tables

LIST OF FIGURES AND TABLES

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Essential Sections



1. Introduction	
A. Background of the research	
B. Research problem or research questions	
C. Gap or lack of research in the field	More common in social sciences and almost required in dissertation writing to show that your thesis is a significant document.
D. Purpose of the paper	Many sciences and engineering abstracts do not have much background but start with the purpose of the research or even the method.
E. Description of the paper	Summarizes what the paper does.
2. Methods	Methods sections are generally longer in Dissertations. Smaller in other abstracts.
3. Results	Many scientific abstracts concentrate more on the results rather than the Introduction or Conclusion.
4. Conclusion	Main contribution of the paper. May be hard to distinguish from results.
A. Blueprint: introduction of topics or issues that will be discussed	More likely in papers that are not based on an experimental design and in the social sciences.
B. Recommendations	More common in social sciences, medicine and nursing. Recommendations to change policies, etc.
C. Implications	Importance of the results for the field as a whole.

Figures

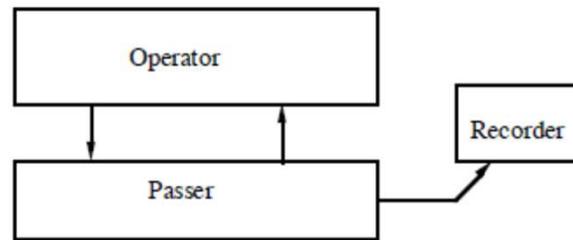


Figure 1 Schematic of experiment set up to do nothing.

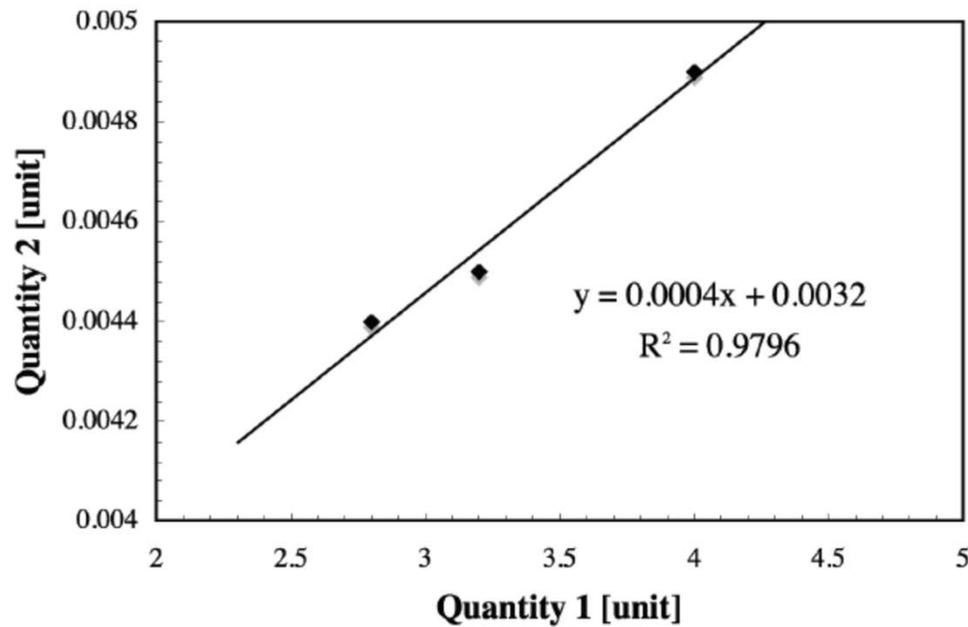


Figure 2 Quantity 1 versus Quantity 2

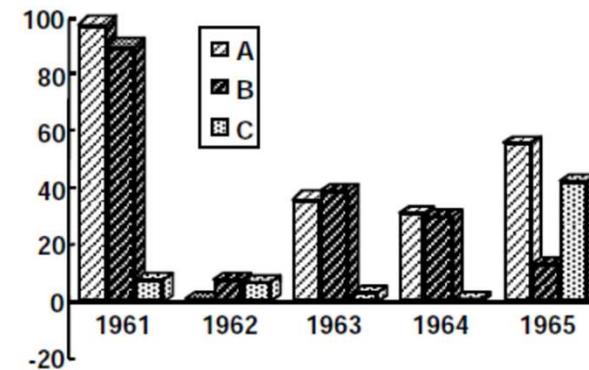


Figure 5 Sample of 3D columns
(from Hadgraft et al. 1994, p. 7)

Tables

Table 1 Test matrix for experiment on nothing.

Trial	Parameter 1	Parameter 2	Parameter 3
1	1	20	1.2
2	1	15	2.2
3	2	20	2.2

Table 2 Some numbers from the result of the experiment on nothing

Trial #	Quantity 1 [unit]	Quantity 2 [unit]
1	4.0	4.9×10^{-2}
2	3.2	4.5×10^{-2}
3	2.8	4.4×10^{-2}

Equations

$$V = 4/3 \pi r^3 \quad [1]$$

where, V = volume of a sphere
 r = radius of a sphere.

in a series of consecutive equations, the equal signs (=) should be vertically aligned, e.g.

$$0 = -C_1\beta^2 + C_2(2\zeta\beta) + C_1 \quad (2)$$

$$X_{st} = -C_2\beta^2 + C_1(2\zeta\beta) + C_2 \quad (3)$$

References

Numerical referencing

In the text of report:

- consecutive numbers in square brackets
e.g. ...validation of results [4].

Reference list at the end of report:

- numbered list of references
 - author's initials or name can be before the surname
 - title follows author, with date appearing later
 - page numbers are last if needed

REFERENCES

- 1 Ferry, J.D., *Name of the Book*, Publisher, New York, 1980, pp 131-140.
- 2 Mandell, J.F., *Some Really Really Long Essay that is Part of a Volume*, Title of the Volume, Smithee, A (ed.), Publisher, New York, 1999, p 140.
- 3 Barnes, N.M, Noble, B.J, and Jones, S, *Name of the Article*, Journal of Something Made of Wood. 1980, Volume #, Section #, pp 131-140.
- 4 Someone, R, *Name of the Article or Web Page*, www.thisbetterbearealwebpage.com/thispage/thisdoc.html, 1966.
- 5 Kao, B.V., Professor of Everything, Planet Earth, personal communication, 2002.

Reference Formats

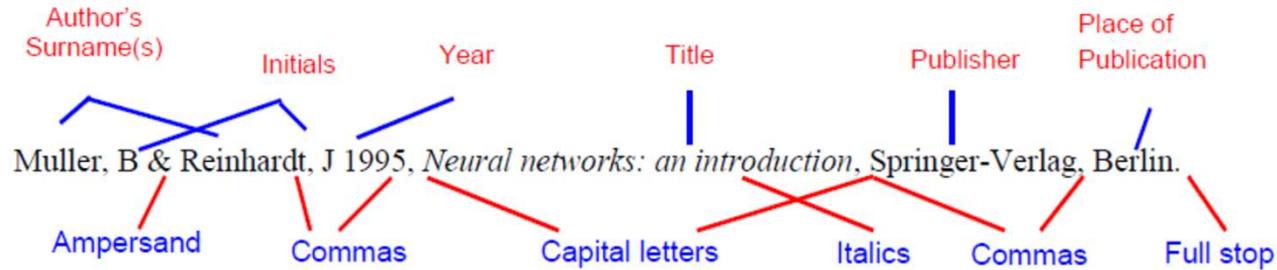


Figure 10 Book in author-date reference list

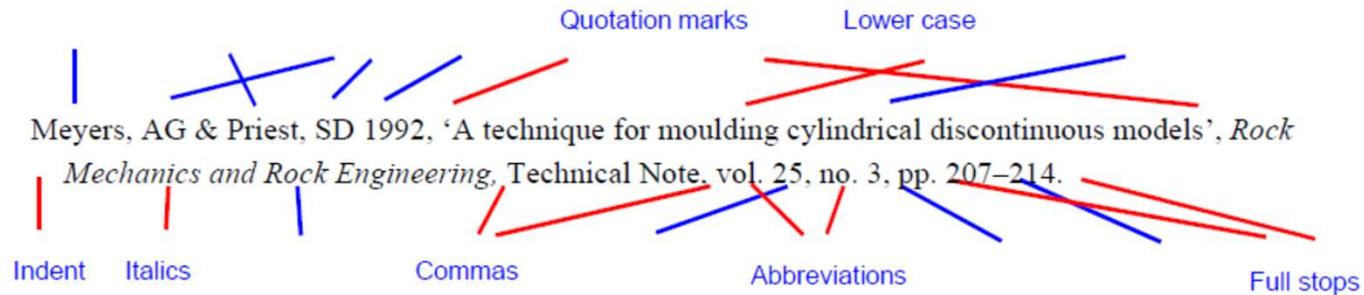


Figure 11 Journal article in author-date reference list

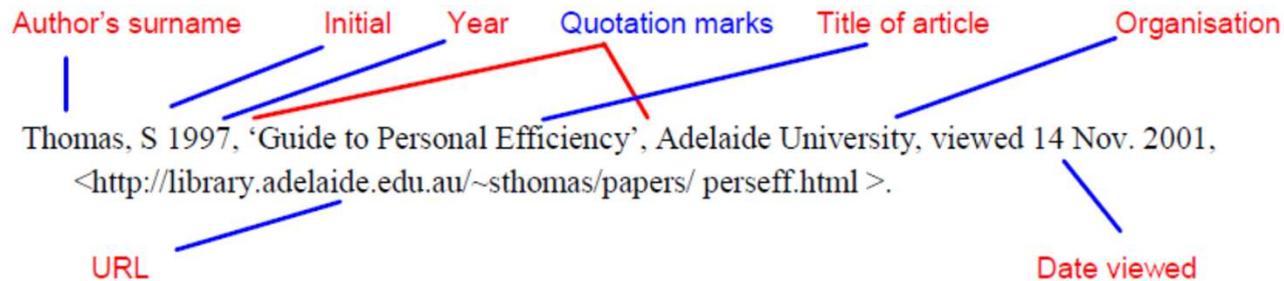


Figure 12 Electronic source in author-date reference list

Appendix

APPENDICES

APPENDIX A SAMPLE CALCULATIONS

Mathematically $1+1=2$,

However, similar addition in base 2 produces:

$$1+1=10$$