

TABLES AND FIGURES

Tables and figures are useful in your research writing because they can summarise data or dense/complex information in a more readable way. However, you should only use them if they assist the reader to understand.

There are different writing conventions for tables and figures. Tables have vertical columns and horizontal rows; figures include all other graphic representations, e.g. graphs, pie charts, diagrams, maps, photographs.

Here are some tips for using tables and figures in your writing, followed by an annotated example of each. There may be variations between disciplines or personal choices (e.g. in numbering styles), so please look at other theses in your area and check with your supervisor.

Positioning tables and figures within your text

- Place tables and figures as close to the relevant text as possible.
- Try to make each table or figure fit onto one page, changing to landscape orientation if necessary. If it won't fit onto one page, begin at the top of a page and continue on following pages.
- Don't leave a large blank space on a page. If you discuss a table that appears on the following page, just refer to the table and continue with your text.
- If you have a very large table or figure, consider summarising it down to illustrate the key data. Put complex, raw data in an appendix.
- Write a separate *List of Tables* and *List of Figures*. In a thesis, these are usually placed after the *Table of Contents*.
- Each table and each figure needs to be numbered sequentially, even if you only have one. These numbers can run throughout the whole document, or be numbered within each chapter of a thesis or exegesis. The following list of tables is from chapters 2, 3, and 4.

<i>Table 2.1 Postgraduate research experience questionnaire, 2006: Comparison of national and RMIT graduate satisfaction ratings</i>	58
<i>Table 3.1 The sample.....</i>	79
<i>Table 3.2 Summarised concept clusters developed from candidates' interview questions.....</i>	85
<i>Table 4.1 Demographic and contextual data of PhD (thesis) candidates.....</i>	92

Titles, labels and legends

- Tables and figures all need brief but informative titles (don't be creative).
- Titles for tables are generally written above; titles for figures, below (check preferences in your field).
- If your table covers more than one page, begin each subsequent page with the table number and write 'continued' instead of the title, for example: Table 4 (continued).
- Check for consistency, e.g. in capitalisation (only first word capitalised, or all key words capitalised?); punctuation (a colon after the table's title? A full-stop after the table number?).
- Label the axes of graphs, and of columns and rows in tables, in order to clearly show units of measurement or analysis.
- Use legends where necessary to define symbols, abbreviations or terminology.

Referring to tables and figures in your text

Tables and figures are always referred to in the text by 'Table 1', Figure 5', etc., not by their titles. Although they must make sense alone, their purpose is to complement information in the text. Your text therefore **must** refer to each table or figure, but it also needs to integrate information from tables and figures without merely repeating it.

An empty sentence such as the following is redundant as it adds no further information than the reader can find in the table:

Table 2 shows the relative numbers of females to males.

Instead, use text to:

- interpret the table or figure
- highlight the main or important points
- highlight any unusual or unexpected findings
- show relationships between data
- draw attention to a relationship or trend
- summarise information in the table or figure.

Here are some ways of introducing tables and figures to your text.

- Identify the table number first and make some statement about it

The data in Table 5.4 indicates that most people on this pathway had been in transitional accommodation on multiple occasions.

- Use 'as', either at the beginning or end of the sentence

As shown in Table 3.3, the input power from the DC-DC converter in Zone 1 is 10W at its peak. Hence the peak power consumption is 10W for half of the processing clusters in the PPU.

From the SPENVIS tools, the world distribution of electron flux encountered in the XSat orbit is obtained, as shown in Figure 3.8.

- Use passive voice

Further demographic and contextual data of the PhD (thesis) candidates are shown in Table 4.1.

- Refer to the table or figure in brackets at the end of the sentence

It is also hypothesised that in IL-6 treated skeletal muscle and liver cells, activity and expression of PGC-1 α and its downstream targets will be increased and thus result in enhanced mitochondrial oxidation and respiration (Figure 3.3).

Using numerals in your text

Here are some guidelines for when to use digits and when to use words.

Use words:

- to begin a sentence, e.g. *Thirty-two respondents identified....* This overrides other considerations.
- for numbers zero to nine

Use digits:

- for numbers 10 and higher
- when preceding a unit of measurement, e.g. 3.5 centimetres, 5 ml
- when representing mathematical functions, percentages, dates, times, scores, exact amounts of money, etc., e.g. 2 hrs; scored 7 on a 10-point scale; \$5.60
- when numbers are part of a numbered series, e.g. Table 1

Remember: Never begin a sentence with a digit.

Example of a table

Here is an example of a paragraph highlighting an element of a table, and the table to which it refers is shown below the paragraph.

Nevertheless, over time it was clear that accessing welfare services became a normal part of day-to-day life, or a routinised practice. The data in Table 5.4 indicate that most people on this pathway had been in transitional accommodation on multiple occasions. Overall, there was a pattern of multiple stays in transitional accommodation, although once again, the data converge around two distinct clusters. The first cluster includes the substance use, youth and mental health pathways. People on these pathways had been in transitional accommodation, on average, five times. This is nearly three times the level found among people on the domestic violence and housing crisis pathways.

Topic sentence

Important point from the table

Further interpretation of the table

Another important point from the table

	Substance use (N=18)	Youth (N=41)	Mental illness (N=6)	Domestic violence (N=14)	Housing crisis (N=24)	TOTAL (N=103)
Mean times housed	4.4	5.5	3.3	2.2	1.6	3.8

CLUSTER ONE
(mean times housed 5.0)
CLUSTER TWO
(mean times housed 1.8)

Table number and clear title

Column titles

Legend

Lines demarcating different parts for the table

Unit of measurement

Source: Johnson (2006, p. 120)

Example of referring to a figure

Here is an example of a paragraph highlighting an element of a figure, and the graph to which it refers.

The maximum and minimum voltage readings for each stretching cycle are illustrated in Figure 4.17. Whilst the voltage readings for the maximum stretch were stable, the baseline readings varied considerably. The coefficient of variation for the maximum stretch had an acceptably small value of 0.54% (mean = 247.17 ± 1.34). The CV for the baseline on the other hand, had a large value of 81.9% (mean = 23.72 ± 19.44).

Introducing the figure
(but note that this could be improved with more information from the figure)

General comment on data, highlighting and contrasting information

Legend

Y axis label with units of measurement

X axis label with units of measurement

Clear title and figure number, (plus extra information)

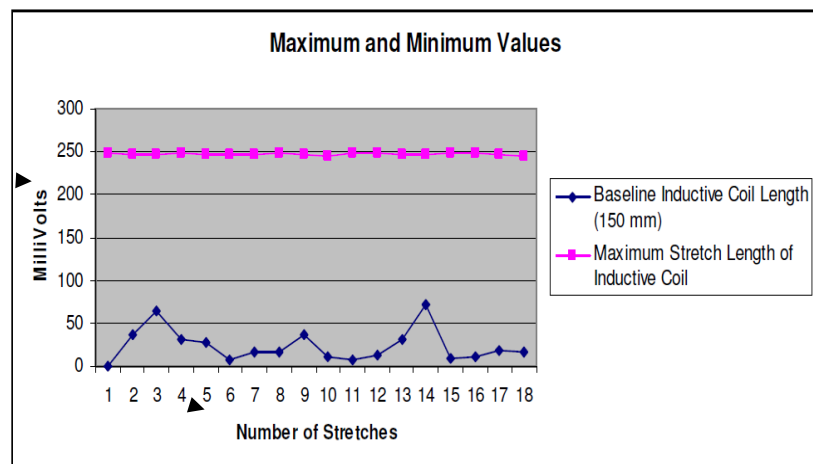


Figure 4.17 The pre-clinical trial reliability test

(Voltage readings in mV for the baseline (blue) and for the maximum stretch (pink) values against the number of stretches)

Source: Ronchi (2008, pp. 95-96)

Sources of examples

Johnson, G. J. (2006). *On the move: A longitudinal study of pathways in and out of homelessness*. (Unpublished PhD thesis, RMIT University). Retrieved from <http://researchbank.rmit.edu.au/eserv/rmit:6220/Johnson.pdf>

Lim, S. (2009). *A fault tolerant parallel computing architecture for remote sensing satellites*. (Unpublished PhD thesis, RMIT University). Retrieved from <http://researchbank.rmit.edu.au/view/rmit:11998>

Neill, B. A. (2009). *The role of gp130 receptor signalling in inflammation and metabolism*. (Unpublished PhD thesis, RMIT University). Retrieved from <http://researchbank.rmit.edu.au/eserv/rmit:6123/N>

Ronchi, A. J. (2008). *A reliability study of a new back strain monitor based on clinical trials*. (Unpublished PhD thesis, RMIT University). Retrieved from <http://researchbank.rmit.edu.au/eserv/rmit:13383/Ronchi.pdf>