Research Capacity Building Workshops

26. and 27. Typing, language and style in research writing; Layout and graphics in research writing

Online Forum

An online forum has been set up at the following web address: http://dutmoodle.dut.ac.za/moodle/

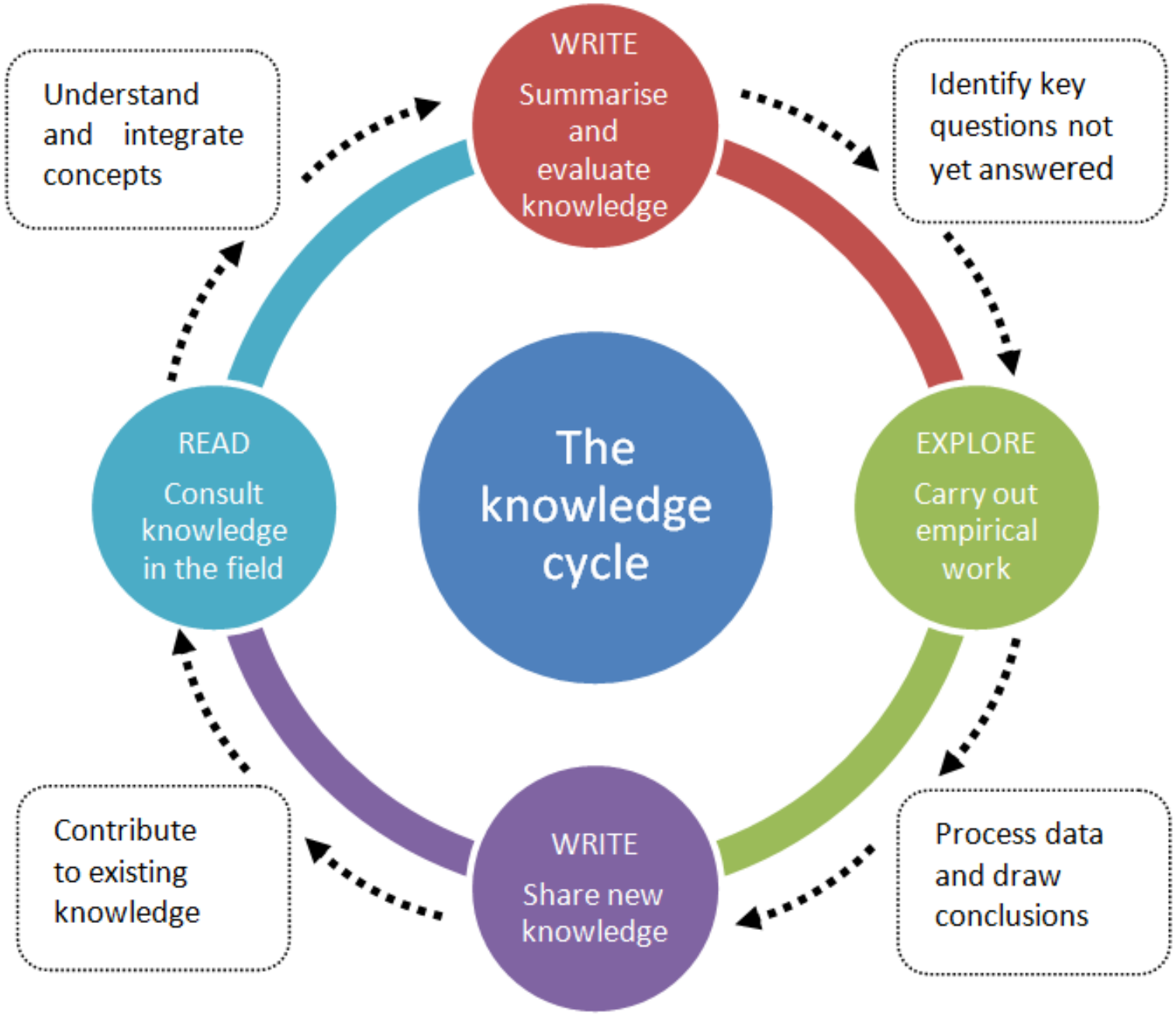
Click on the category *RPS Research Capacity Building,* and click on the course *Research Matters.*

Materials are posted there online after workshops, including useful articles and books.

To log in:

User ID: staff or student number

Password: research


The knowledge cycle
WRITE
Summarise and evaluate knowledge
Identify key questions not yet answered
EXPLORE
Carry out empirical work
Process data and draw conclusions
WRITE
Share new knowledge
Contribute to existing knowledge
READ
Consult knowledge in the field
Understand and integrate concepts

How to fail a PhD

1. Submit an incomplete, poorly formatted bibliography.
2. Use phrases such as “some academics” or “all the literature” without mitigating statements or references.
3. Fill the bibliography with references to blogs, online journalism and textbooks.
4. Use discourse, ideology, signifier, signified, interpellation, postmodernism, structuralism, post-structuralism or deconstruction without reading the complete works of Foucault, Althusser, Saussure, Baudrillard or Derrida.
5. Assume something you are doing is new because you have not read enough to know that an academic wrote a book on it 20 years ago (Brabazon, 2010: 2-6).

Brabazon, T. 2010. How not to write a PhD thesis [Online]. *Times Higher Education*, 28 January 2010. Available: http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=410208&c=1 [Accessed 1 June 2011].

Why are editing and proof-reading important?

If universities of technology are to assume their proper place in the South African higher education hierarchy, research has to be rigorous, uncompromising in standards, and *impeccable in presentation* (van Aswegen 2007: 1148, my emphasis).

What is the language editor's job?

From van Aswegen 2007 (1139-1140):

The editor's job is not to produce a defensible thesis, it is to produce a thesis that . . .[flows] and is at least clean (Editors' Association of Canada 2006).

If editors respect the academic purpose of thesis writing and the priority of the supervisor, we can help students (and ourselves). As one member told us: "We are a valuable resource for students as long as we edit these papers in an ethical way – a way in which … the work that students submit is indeed their own, only more polished" (Editors' Association of Canada 2006).

What is the Supervisor's job?

There seems to be an unwritten assumption by many supervisors (in fairness, not all) that no aspects of writing and/or bibliographic citation fall within their bailiwick. Academics are not necessarily language specialists, and may not be conversant with the finer distinctions between 'due to' and 'owing to', 'less' and 'fewer', 'affect' and 'effect', or what a split infinitive is and why it should be avoided. Supervisors should, however, be alert to consistency in respect of English vs. American spelling, usage ('data are' or 'data is'), hyphenation ('co-ordinate' or 'coordinate', 'macro-economic' or macroeconomic'). Supervisors should also be conversant with the terminology (and its spelling) of their disciplines, and should at least have a nodding acquaintance with the conventions of capitalisation, punctuation, symbols, and bibliographic citation (van Aswegen 2007: 1145-1146).

Supervisors need to be aware of language (and other presentation) errors and should ensure that these are corrected.

Distinction between editing and proof-reading

There is a need to distinguish between proof-reading (which can be farmed out) and editing, which is the job of the Supervisor if an editor is needed to clarify the meaning of the piece of writing. A proof-reader unfamiliar with the field is not in a position to say exactly what the thesis text means (or should mean), and it would be unethical for a proof-reader to contract to do this job, as it verges on “ghost writing”.

Who assists with clarifying meaning?

The Supervisor is the only one in a position to assist the thesis writer with clarification of meaning, for two reasons:

- Subject expertise – the Supervisor should understand what the writer is trying to say in a thesis and should be able to judge when it has been sufficiently explained.
- Ethics – only the Supervisor knows how much work the student put into the thesis and how much further assistance is justified.

Proof-reading

Proof-reading deals mainly with *identification of errors in a text* (and suggestions as to the option/s):

- Spelling
- Punctuation
- Layout (including spacing – word, line, paragraph; headings, numbering, and pagination; table of contents?)
- Language:

  e.g. Grammar: concord, tenses, co-ordination and subordination; conjunctions/connectors; idiomatic usage (correct prepositions); language conventions.

Grey areas….

- Style:

  e.g. Marathon sentences, inappropriate words or language, precision, slang.

- Academic conventions:

  e.g. How to use references, set out a bibliography, use of technical or specialist terms.

  Moving into….

Editing

This refers not only to improving the expression (including larger structuring) of a piece of writing but also to clarifying the meaning of the piece so that it communicates better.

Proof-readers

Good professional proof-readers are very expensive, and cheap - or free - ones are ...(well, go and look at most theses in the library).

Just make sure exactly what they check and what you will have to check yourself (i.e. do they check page numbering, decimal numbering of headings and figure/table numbering both in the caption and text? Table of contents? References? Whether sources cited are in the References?)

Proofreaders contd.

A proof-reader is not meant to check when you have left out a section (your problem) nor when you have whole paragraphs repeated verbatim in other places because you were careless when cutting and pasting (examiners *do* notice this, and they do *not* like it!) A proof-reader is not expected to know what you really meant, just to ensure that it is grammatical, and punctuated and spelt correctly (i.e. so that it becomes quite clear that you wrote rubbish).

Problems of postgraduate students in respect of research writing

From van Aswegen (2007: 1141, adapted):

- Many postgraduate students are writing in their second language.
- Many supervisors are supervising in their second language.
- Only 20 per cent of current Grade 12 learners entering higher education have a Grade 12 level of literacy.
- 80 per cent of learners entering higher education are functionally illiterate (*Cape Times* 2004).
- Tertiary-level students' comprehension of academic texts is roughly 40 per cent (*Burger* 2004).

Problems of problems of postgraduate students contd.

- Many postgraduate students have little or no idea of sourcing material beyond the institutional library and the Internet.
- Style guides on referencing and research writing are available on the Library Service Intranet and Research and Technology Promotion website. In many cases, supervisors and students pay scant attention to these institutional guidelines; attention to the detail of scholarly writing is often also less than sedulous.

Common errors in citations and bibliographies

- Textual references without corresponding items in the bibliography.
- Textual references without accompanying page numbers (or incorrectly cited page numbers).
- Bibliography not in alphabetical order. Items incorrectly filed.
- Incorrect spelling of authors, titles, publishers.
- Transposing author's surname and first name.
- Vagueness about the use of et al. for three or more authors (and note that the possessive of et al. [in textual references] is not et al.'s!)
- No indication of editor or editors.
- No indication of edition, if not first.
- Incorrect date of publication (impression/reprint rather than edition date cited).
- Inconsistent use of sentence case and title case in titles of books, titles of journal articles and titles of journals.

Common errors in citations and bibliography contd

- Confusion in respect of italicisation of titles of books and title of journals (titles of journal articles incorrectly placed in italics).
- Underlining instead of italicising titles (obsolete manuscript style).
- Insufficient details given for newspaper articles.
- Confusion between publisher and printer.
- Confusion about place of publication (especially countries, cities, US states, UK counties).
- Omission of page numbers of journal articles and chapters in books.
- Incorrect corporate author (frequently no author) cited in government publications and legislation (e.g. Acts of Parliament).
- Unnecessary details cited for publishers.
- Insufficient detail provided for conference papers.
- Confusion regarding the correct citation of Internet items.

Common errors in citations and bibliography contd.

- Date of downloading of Internet citations omitted.
- Changing American spellings of book, journal article and journal titles to UK or SA English; ditto US spelling/punctuation in quotations.
- General inconsistencies in respect of format (van Aswegen 2007: 1143).

To which I add:

- Leaving out the author.
- Leaving out the title.
- Using the identical style for each bibliography entry to the style in which it was quoted in another source.
- Listing the identical book or article twice and labelling it “a” and “b”.
- Listing the identical author and title twice under a different year.
- Not listing works by same author in correct year order (i.e. oldest first).

Typing, language and style in research writing

Typing conventions

Most postgraduates are generally fairly computer literate and familiar with Microsoft Word; however they are not always familiar with typing conventions and layout, and frequently produce documents typed in disparate fonts, and with inappropriate margins, inconsistent line spacing, incorrect page numbering, etc. Theses are often incorrectly typed in US English (e.g., behavior, program, analyze). It is important to default language to English (UK) or English (SA), otherwise Microsoft Word reverts to US English each time the document is accessed. If the writer is preparing a manuscript for publication in a US journal or book, American spelling and punctuation rules obviously apply (van Aswegen 2007: 1144).

Basic typing conventions

- Page size is consistent (e.g. A4).
- Margins are consistent.
- Font type is consistent.
- Two spaces are left after each full stop at the end of a sentence.
- Paragraphs are signalled by hitting “Enter” twice *(don’t leave “half lines”!*)
- Double inverted commas are used except for a quote within quotes and in the case of the apostrophe.
- Headings are consistent (in font size, case and spacing) , and are consistently numbered.

Basic typing conventions contd.

- Ensure that one space only is left between words (and *no* space is left between a word and the comma or full stop.)
- Use 1.5 or double spacing in the thesis text.
- Indent long citations, and use single spacing and no inverted commas.
- Use black font only for thesis text.
- Do not use fancy fonts or a variety of different fonts.
- Start each chapter on a new page.
- Correct punctuation of the following: etc., e.g. and *et al*. (don't use "etc." unless it's in a transcript.)
- Decide whether "data" is singular or plural and stick to this.

Remove gremlins

- Remove 10 pt Multiple paragraph spacing and Calibri 11 font from your documents ***from the start***, and keep removing them each time they creep back.
- "6 pt" "8 pt" "10 pt" etc. spaces should not be added under (or above) paragraphs except (if you wish) for headings, bullets and indented citations.
- Break long internet addresses as follows:

  "After a slash, before a period"
- Numbering: 2.1 *not* 2.1., 2.1.1 *not* 2.2.1. Don't go to four decimals[1] – use a. b. c., and (i) (ii) (iii) after that.

[1] *Unless it is customary in your discipline*.

Acronyms

Convention for use of acronyms in the text:

The full title is listed on its first use in each chapter followed by the acronym in brackets. Thereafter, only the acronym is used (Hoffstee, 2006).

How to handle incomplete citations

Incomplete citations can be worked into the text, e.g.

The focus is on the process of writing, and “the emphasis ... is not so much on the medium (accuracy) but on the communication mode (fluency)” (Widdowson, in Chick ms).

Horowitz (1986: 789) therefore advocates that instructors ensure that their students’ writing falls within “a specified range of acceptable writing behaviours dictated ... by the academic community”.

Avoid contorted prose

While incomplete citations can be worked into the text, contortions such as the following should be avoided:

Various statistical information presented by Webb & Kembo-Sure (2000, p. 5) clearly indicate that the cognitive development of many Black South Africans was far below its full potential due to the "lack of knowledge of the language used in instruction" (Brock-Utne, 2005, p. 549), negatively affecting English proficiency thus "preventing them from using it as an instrument of meaningful access to education" (Webb & Kembo-Sure, 2000, pp. 5-7).

Long citations

Long citations (more than 3 lines) are indented (e.g. 1 cm left and right) and single spaced. In long citations the full stop goes AFTER the final bracket of the citation, e.g.

> [V]alues are the human goals that we use to give our lives their particular form. They are embodied in our practice and their meaning can be communicated in the course of their emergence in practice (Whitehead 1989).

Long citations contd.

Long citations should not start with an incomplete sentence, e.g.

As Alexander says:

> …the radical intelligentsia is at pains to make the point that the difference between pre-industrial Europe and ancient Africa was an accident of geography, in particular the fact of the impenetrable equatorial forests, the belt of pestilence north and south of the equator and the ‘recent’ aridity of the Sahara Desert (2009: 4).

He adds that the high cultures of Africa did not display those marked differences.

Direct and indirect speech

A verbatim citation (long or short) should never be introduced with “that”, as “that” introduces *indirect* speech.

Incorrect:

Schön states that:

> Our knowing is ordinarily tacit, implicit in our patterns of action in our feel for the stuff with which we are dealing. It seems right to say that our knowing is in our action (1995: 49).

Multiple authors and use of *et al.*

The general rule is that the first time a reference to multiple authors is made, *all* authors are named. (Make sure it falls at the end of a sentence!)

After that, the first author followed by “et al.” is used (*et al.* is usually in italics).

e.g.

In fact the static concept of “academic discourse” violates the very principles of infinitely diverse “situated practice” (Cazden *et al.* 1996) which the models produced here support and explain by making the context in which composing is situated part of the variables in a systemic social process.

Inclusion of researcher publications/ artefacts

A list of prior publications related to the work in the thesis should be included in the Preface.

PREFACE

This research represents original work by the author, its only prior publication (by the same author) being in peer-refereed conference and journal papers. Where use was made of the work of others it has been duly acknowledged in the text.

PRIOR PUBLICATIONS ARISING FROM THIS STUDY

Pratt, D.D. 2005. Social mechanism and software design: the use of a stochastic social-process algorithm in the design of a writing tutor program. Proceedings of the *3rd International Conference on Computer Science and its Applications (ICCSA-2005).* San Diego, California, USA, June 27-30 2005.

Bibliography typing tips

- Do not finalise your bibliography until you have one completed thesis draft document!
- Convert your references to text before final printout (but save a version with the fields intact).
- Don’t EVER use Wikipedia in references or citations.
- Your bibliography should be sorted alphabetically by author (then date), and NOT divided into books, articles, Acts, etc.

Language conventions

- Commonly misused terms
- Use of past and other tenses
- Use of “I” and passive voice
- Conventions of direct and indirect speech
- Pompous or bombastic language

Commonly misused terms

Use of Thesaurus: not all synonyms are used in certain contexts (e.g. “expatiated” for “explain”, “plethora” for “many”, “simultaneously” for “at the same time”).

Students often use contorted expressions which are not verbs of “saying” to introduce direct or indirect speech:

- She further elaborates that…
- He elucidates that…
- …enlighten us on the results...

Commonly misused terms contd.

- He goes on to articulate…
- …the desegregation of schools which have been adhered to in Part one of this study.
- Torres purports that…
- Creswell elaborates further that…
- …… in the ensuing sections….
- Babbie *et al.* (2001) elaborate that…
- Creswell alludes that data derived from….

My pet hate: “allude”

“Allude” is used to refer to something or somebody indirectly, without giving a precise name or explicit identification.

e.g. I presume you are alluding to the alleged financial discrepancy.

IT IS USED INCORRECTLY AS A VERB OF SAYING:

e.g. Creswell alludes that data derived from….

You cannot “allude that….”! (The correct prepositional use is “allude to”.)

Use of past and other tenses

- The abstract sums up what was done in the research (not in the thesis), and should be mainly in straight past tense.
- A summary (or introduction) of chapters shows what happens in the thesis (or chapter), and should be in present tense (avoid future tense, i.e. “This chapter will deal with…” This can get complicated!)
- Present tense should be used for what authors say, except when their views have changed over time.
- The data collection should be expressed in past tense.

Use of “I” and passive voice

In a “register which is largely objective and impersonal, but not inflated or pretentious” (van Aswegen 2007: 1144) “I” tends to be avoided.

In self study “I” needs to be emphasised.

Passive voice tends to make the text more formal, but can lead to some ridiculous contortions.

Conventions of direct and indirect speech

Direct speech uses a verb of saying followed by a colon or comma and with the exact words spoken placed in inverted commas (except in the case of long, indented citations).

Indirect speech uses a verb of saying followed by "that" and with the words paraphrased and not in inverted commas (unless a specific word or phrase is used verbatim).

Pompous or bombastic language

Van Aswegen on Research writing style

The requirements for research writing are generally no different from those for most other types of writing: clarity and precision; avoidance of ambiguity; adherence to accepted standards and current usage of grammar, spelling, punctuation and paragraphing; avoidance of clichés and unnecessary obfuscating jargon; appropriate tone; a register which is largely objective and impersonal, but not inflated or pretentious; and writing which is concise, avoiding verbosity and circumlocution (van Aswegen 2007: 1144).

Pompous or bombastic language

…the researcher observed trends emanating from the study in the answers prevalent in the questionnaires…

What are the aims of the study saying?

The core aim of analysing this qualitative data was to achieve the objectives of the study.

It is emphatic from the pie graph in figure 5.6 above that the almost 80% of the respondents were clear.

Figure 3.2 depicts that…

…were distributed more or less equitably across..

This suggested that the majority of respondents gave prominence to their children learning the English language.

Pompous or bombastic language contd.

…the desegregation of schools which have been adhered to in Part one of this study.

While competence was not the focus of this study but, disturbed by various incidental evidentiary data gathered, urged this study to delve deeper into this phenomenon.

Thus, in an attempt to excavate a more holistic picture of a given phenomenon, …

This fixation on means and ends in the education milieu with conopunia has led to a very myopic view that deprives modes of rationality based on critique and understanding.

This ratified the contingency of English proficiency at interviews claimed…

“Lost in translation!”

From the foregoing discussions, it can therefore be extrapolated that teachers, given the definition of intelligence which includes the ability to master and use a range of academic skills, like reading (McDonough in Ellis, 1985; Gardner, 1985), based on Krashen’s theory (cited in McLaughlin, 1987) where it is argued that writing competence comes from large amounts of self-motivated reading, which is considered to provide the comprehensive input for writing, encouraged learners to read.

Other conventions

These are not really language rules, but academic conventions:

- How much explaining is needed
- Judicious honesty
- Verbatim and long citations
- When the page number of a source must be given
- Sweeping claims (“proves”) vs. hedging (“suggests”)

How much explaining is needed

Do not explain as if the reader did not know what you were talking about!

In a thesis, the idea is to explain in enough detail to show that *you* know what you are talking about.

The only time detailed explanation is needed is when:

- a fine distinction is necessary (e.g. with complex definitions) ;
- the researcher is explaining a complicated new idea;
- there is the danger that confusion might arise.

Judicious honesty

The researcher is not required to explain all false trails and things which did not work or irrelevant details, but is expected to get to the point and explain what *did* work.

However, a failed first attempt can be useful to cite as a "pilot study" .

EXCEPTION:

In artefact development, things which did not work are part of the development.

Verbatim and long citations

Verbatim and long citations should be avoided, as they suggest either that the writers could not understand what they read, or that they were not able to describe it in their own words. It also suggests that the literature has not been internalised or evaluated sufficiently. *It is the mark of an inexperienced researcher to make excessive use of verbatim citation.*

When the page number of a source must be given

The page number of a source must be given for:

- a direct citation (short or long) from a book or article;
- a specific point or argument from a book or article;
- a figure or table from a book or article.

Hoffstee suggests that, for Internet texts without page numbers, thesis writers should put the estimated page in square brackets after the author and date (2006: 252).

Reference:

Hoffstee, E. 2006. *Constructing a good dissertation: a practical guide to finishing a master's, MBA or PhD on schedule.* Johannesburg: EPE.

Sweeping claims vs. hedging

Sweeping claims ("proves") vs. hedging ("suggests").

In social science research, the most one can say is that the evidence "suggests" that something is so (be sure to give limitations).

Even in positivist research in the natural sciences, "proof" is debatable - most "laws" are in fact the most likely explanation based on observation, and were not necessarily "proved" empirically (see Franck 2002: 5-6).

Reference:

Franck, R. 2002. *The explanatory power of models: bridging the gap between empirical and theoretical research in the social sciences.* Norwell, MA: Kluwer Academic Publishers.

Layout and graphics in research writing

The importance of presentation

No matter how well the data gathering has turned out and how good you data is, presentation is a very important part of the results.

The examiners (and other readers) did not see you gather the data and cannot read your mind: they can see only what you put on the pages of your thesis.

Put too much, and you have information overload; put too little, and you are suspected of either not doing the work or fudging the results.

If you do not present your results clearly, they will see you as confused; even worse, *they* will become confused.

How do you present the data?

- What to include, what to leave out?
- What to put in an Appendix?

These are not just research problems, they are *writing* problems.

Good writers have learned:

- How to pre-empt what they are going to say
- How to present information effectively
- How to sum up afterwards

They also know how to *vary* their approach.

Data is *evidence*

Data was gathered *as evidence to make your case*, to answer your research questions, and must not only be recorded and summarised (usually in an Appendix), but also *must be used as evidence in your thesis argument.*

The Examiners are not going to "join the dots" and figure out how your evidence supports your argument: *you* must make the connection clear for the Examiners. Presentation of data must be made in a way which proves your point.

Two aspects of data as evidence

Recording: Recorded data (e.g. transcripts, figures, mass details) is usually kept in an Appendix.

Argument:
Data used as part of your thesis argument is usually selected for use in your thesis body text (i.e. only excerpts appear).

Where to position the data presented

Transcripts of data should go in an Appendix: selected extracts should go in the chapters *to be used in your argument*.

Visual communication of data

Visual communication is very important, but remember:

Every figure, table and/or illustration in a thesis must be mentioned in the text, and is not just there to brighten up the page.

N.B. The way you represent your data visually can make or break your case: visuals are not for cosmetic purposes!

Placement of figures and tables

The figure or table should be placed as soon as possible after the first reference to it in the text. In order to avoid unsightly gaps, this placement may not always be precise.

As the graphics can - and do - move around considerably as you format the final layout of your thesis text, you should *never* refer to “the figure above” or “the table below”: always refer to it by its *label*: “Figure 2.3” or “Table 5.1”.

The Challenger Disaster

Michael Friendly, of *DataVis.ca*:

One virtue of a good graphical display is to allow us to see patterns, trends, or other structures which would otherwise be concealed in another form of display. It may be heartbreaking to find out that some important information was there, but the graph maker missed it. The story behind the *Challenger Disaster* is perhaps the most poignant missed opportunity in the history of statistical graphics. But such graphical failures often provide useful lessons.

See http://www.datavis.ca/gallery/missed.php

Conventions for figures, tables and illustrations

Some conventions regarding figures, tables and illustrations:

- These are usually centralised on the page.
- Captions for figures go *under* the figure; captions for tables go *above* the table.
- Figures and tables are labelled independently, according to their order in a *chapter*.

Layout tips for MSWord

To stop graphics jumping around on the page, either:

set them “in line with text” and treat graphics as text

or

place them within tables (you can make the table lines invisible).

“Quick fix” screen dumps

MSOffice graphics (tables, shapes, graphs) are often not stable when inserted into a thesis text. To stabilise, do a “screen dump” and “insert as a picture”, as follows:

Tab + Print Screen copies the graphic from the page.

Open a blank PowerPoint page.

Control + V pastes the graphic on the PowerPoint page.

Use “Format” and “crop” to cut off unwanted edges.

Right click, and “Save as picture” (choose .jpg option).

Insert the picture into thesis page in place of the original table, shape, graph, etc. (N.B. *Keep a copy of the original!)*

Bullets

These work best when you want to pull out some main points and highlight them. Don't use them too often, and don't have overlong bullet entries (use paragraphs, rather).

Tables

Tables are excellent for quickly and clearly showing complex *relationships* between different factors or measurements.

Text in tables should be *single spaced* in the thesis body.

Graphs

Ensure that an appropriate type of graph is chosen in order to display the results clearly, e.g.

- Line graph
- Bar graph
- Gant graph
- Histogram
- Pie chart

Figures

Figures can be used to give a holistic view of a complex abstract concept.

However, the figure must be *explained* in the text.

More detailed notes could be added in an Appendix.

This means that the reader can absorb the information both visually and verbally. Figures also break up long stretches of verbal text, which can be exhausting to read.

Appendices

Appendices should not be used as “dumping grounds” for text which does not fit into the body of the thesis.

Raw data can be displayed (but neatly) in Appendices.

Additional notes or excerpts which provide relevant and interesting information, but which would break the flow of the thesis argument, should be put in Appendices.

Instructions (e.g. how to load software accompanying the thesis) can also be put in Appendices.

CDs with data should be labelled as Appendices.

Self study data

The bodies of self study theses tend to be shorter than the norm for a doctorate (i.e. under 150 pages).

In a self study, while extracts are used in the thesis text, a huge amount of evidence is contained in the Appendices. This is because the evidence not only exemplifies the nature and scope of the self study: it also validates the claims made in it.

Self study researchers may use the term “Illustration” instead of “Figure” or “Table”, because the sheer variety of evidence may make categorisation difficult.