

Research Capacity Building Workshop

Writing a Thesis Part 2



Writing a Thesis Part 2

Structuring a thesis is crucial to how clearly it communicates and therefore to its eventual success. This workshop will look at structural issues and problems which arise as the thesis content is generated, including the issue of decimal numbering (or not).

Online Forum

An online forum has been set up at the following web address:

<http://dutmoodle.dut.ac.za/moodle/>

Click on category *Research and Postgraduate Support*, and click on course *Research Matters*.

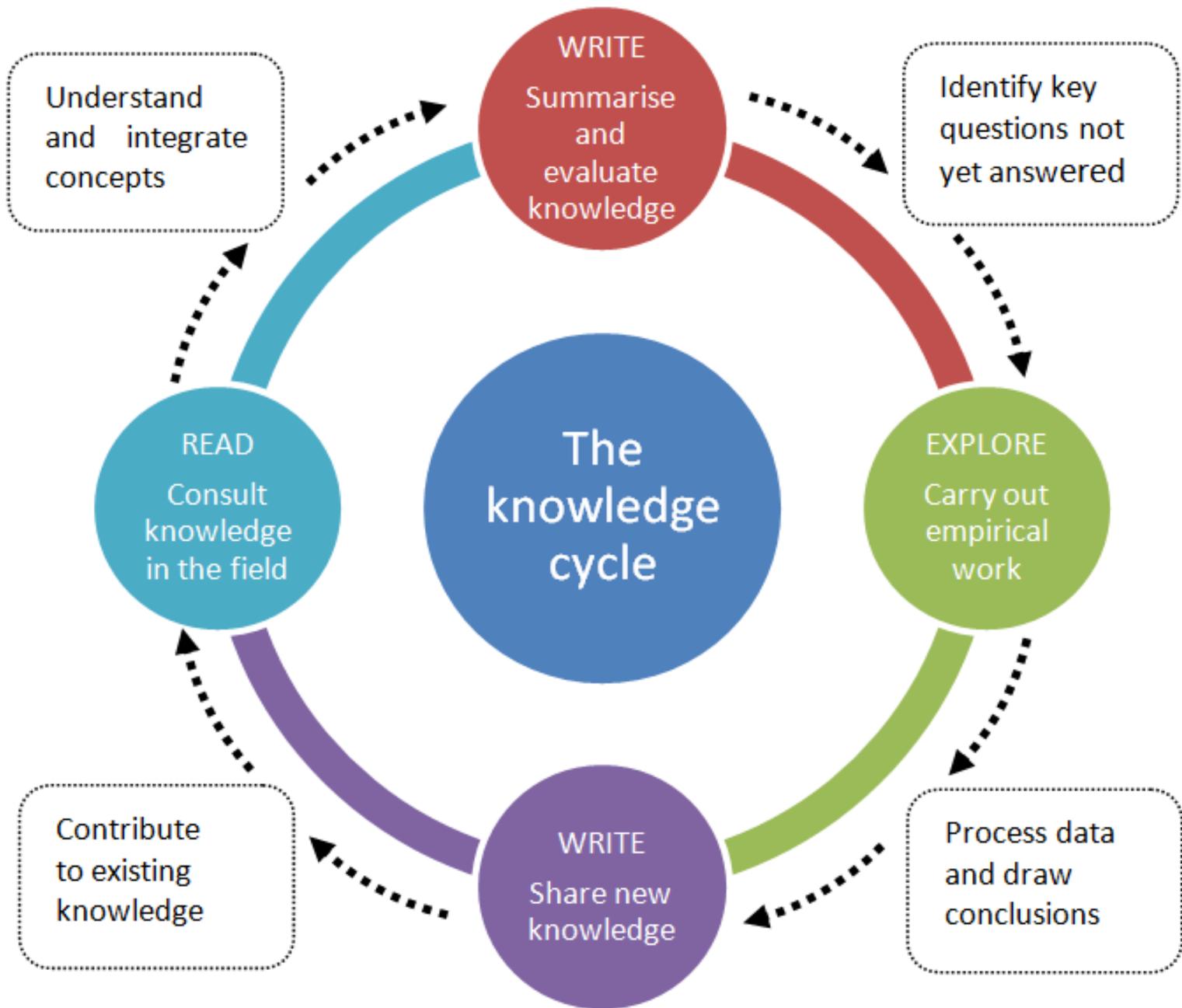
Materials are posted there online after workshops, including useful articles and books.

To log in:

User ID: staff or student number

Password: research

Once on *Research Matters*, go to the “Postgraduate Research Forum”, and respond to the message **WRITING A THESIS PART 2 (2014)**.



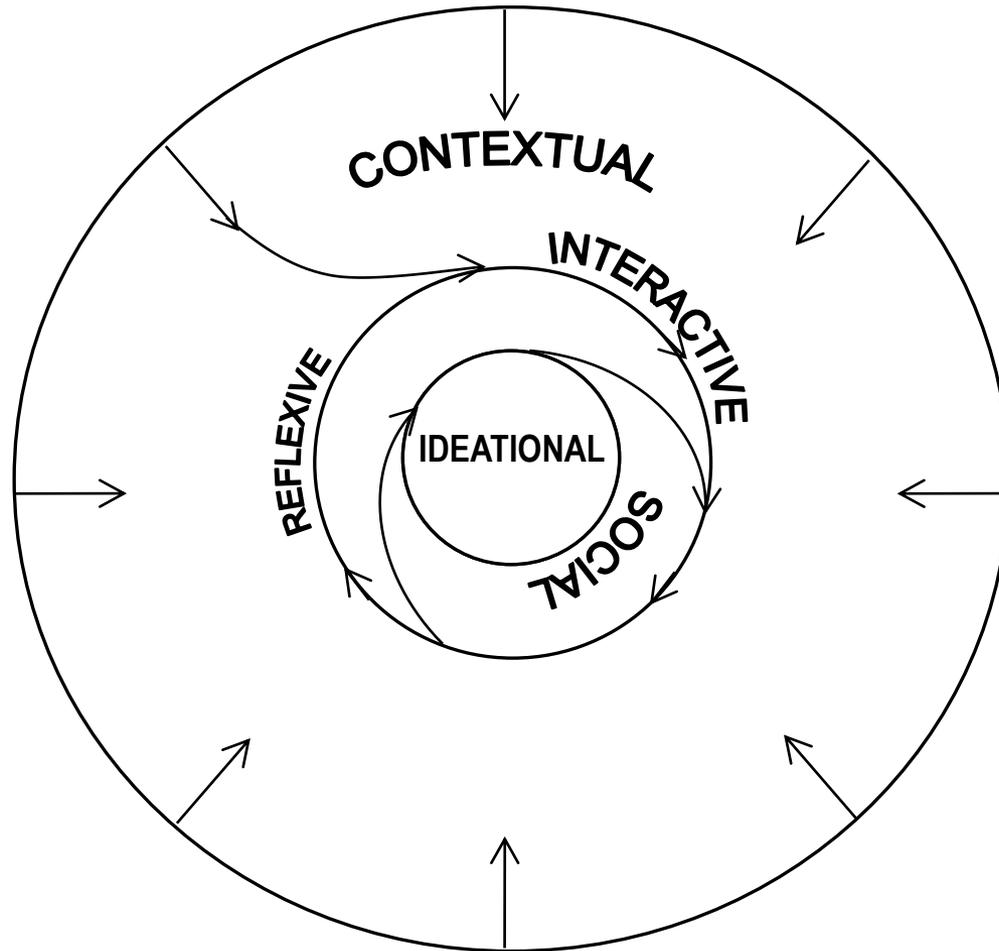
WE ARE HERE

Essential communicative functions

For communication to occur (effectively):

- Some form of interaction must occur.
- The interaction needs to be set in a context.
- Message content needs to be generated.
- Social requirements need to be observed.
- The whole interaction needs to be regulated by feedback.

System of communicative functions

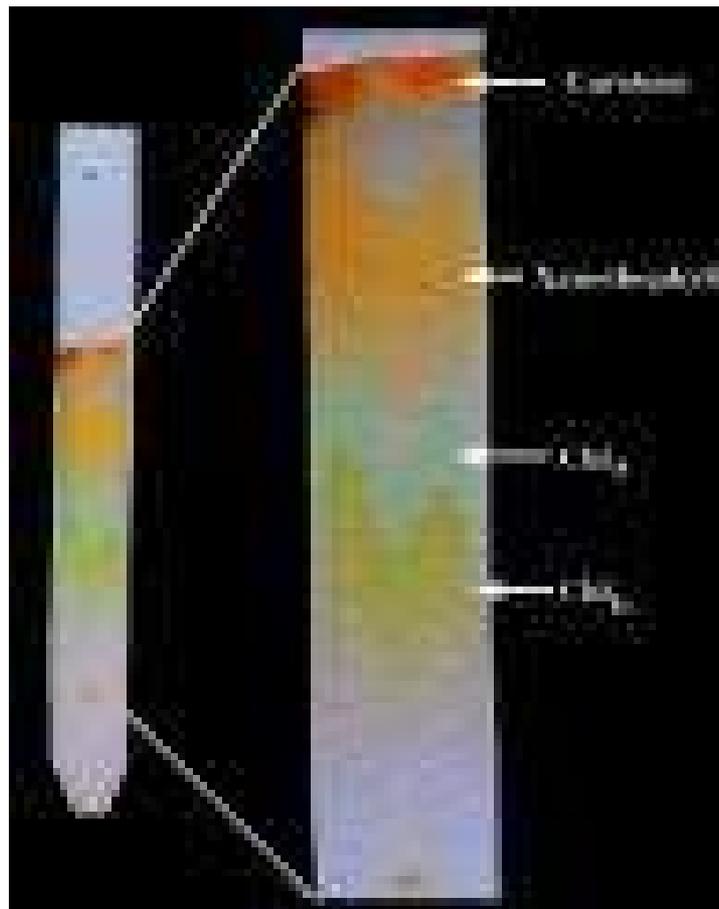


Communicative functions

The functions apply to all communication modes, and not just writing. In speech, the functions are all carried out simultaneously.

In writing, the functions are separated into distinct phases because writing is a delayed interaction: the phases are the “stages of writing” observed by researchers.

The delayed aspect of writing staggers the communicative functions into a recursive process in stages, in much the same way as delayed absorption by litmus paper reveals chemical compounds to be made up of bands of separate elements.



Model of the writing process

STAGES OF THE WRITING PROCESS

- | | | |
|---|--|---|
| 1 Prewriting
<i>CONTEXTUAL</i> | - Consider purpose and reader, gather data, let it mull round.
- DATA GATHERING | R |
| 2 Draft writing
<i>IDEATIONAL</i> | - Suggest structures or outlines, jot down ideas or fragments, write larger pieces.
- IDEA GENERATION | E |
|  | | C |
| 3 Major editing
<i>INTERACTIVE</i> | - Reread and structure for reader, order, add, delete (go back to 2 if necessary).
- IDEA ORGANISATION/STRUCTURING | U |
| 4. Minor editing and polishing
<i>SOCIAL</i> | - Check for correctness, check format and minor editing conventions.
- EDITING | R |
| 5 Evaluation
<i>REFLEXIVE</i> | - Assessment (by writer and others) in terms of purpose.
- EVALUATING | S |
| | | I |
| | | V |
| | | E |



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Structuring is *interactive*

Structuring in writing fulfils the **interactive** function by anticipating and providing content for a reader who is not present to *ask* for necessary information.

It carries out the same function as turn-taking in conversation.

To structure a thesis well means anticipating reader needs and providing for them in advance.

Traditional thesis structure

Traditional thesis structure is used because it answers the obvious questions a reader would ask about your research if they were **talking** to you about it.

The structure in a sense mimics a **live interaction** with your imagined reader.

In a conversation....

If someone wanted to know what your research was about, they would ask you:

- So, what was the topic of your research?
- Briefly, what did this involve?
- Why was all of this relevant?
- What other research had already been done before you started?
- Which left you focusing specifically on....?

...conversation continued

- How did you go about finding this out, i.e.
 - what approach did you take, and
 - what research methods did you use?
- What new information did you find out?
- What conclusions did you come to?
- What further research in that area would you suggest?

Structure pre-empt's the reader's needs

- So, what was the topic of your research? [**Thesis title**]
- Briefly, what did this involve? [**Abstract**]
- Why was all of this relevant? [**Introduction**]
- What other research had already been done before you started? [**Literature review**]
- Which left you focusing specifically on....? [**Specific research questions**]
- How did you go about finding this out, i.e.
 - what approach did you take, and [**Orientation/theoretical framework**]
 - what research methods did you use? [**Methodology**]
- What new information did you find out? [**Findings**]
- What conclusions did you come to? [**Conclusions**]
- What further research in that area would you suggest? [**Recommendations**]

Why traditional structure?

Traditional structure works well because it supplies the answers to the obvious questions anyone would ask about your research. It falls logically into the larger chapter sections:

1. Introduction
2. Literature Review
3. Orientation (or Approach)
4. Methodology
5. Findings
6. Conclusions and Recommendations

Cohesion and coherence

Cohesion and coherence are important aspects of writing *anything*:

- Cohesion (links that hold a text together) – do your points link up and flow logically?
- Coherence (relationship between parts of a text) – does your writing make sense to the reader?

There are various techniques for achieving cohesion and coherence in a thesis.

Chapter structure

Good chapter structure assists with both cohesion and coherence.

- The chapter Introduction tell the reader what the chapter is about.
- The chapter Conclusion identifies key points of the chapter and says why they are significant.

Example of chapter Introduction

3.1 INTRODUCTION (*Somlenze p 34*)

As I have already established, this study seeks to understand how Grade Six learners in rural schools of the Eastern Cape respond to the use of graphic design materials as visual communication in addressing the issue of literacy acquisition. It will then ask, with regards to the Grade Six learners' responses, what graphic design strategies could be used to enhance the acquisition of literacy and what implications such strategies have for the acquisition of literacy. These research questions then guided the choices made for the methodology selected in this investigation. In other words, I will discuss the methods used to answer these research questions and also make efforts to explain, describe and point out why it is a suitable approach for this particular study. This chapter will also discuss the methods and procedures used in preparing the study, and these include collecting and analyzing the data. It will also provide the steps involved in data collection and analysis.

Example of chapter Conclusion

3.8 CONCLUSION (*Somlenze p 43*)

This chapter has discussed the research methodology adopted in this investigation. It provided details to explain different processes involved when conducting a phenomenological research. It also explains how data was collected. It must be borne in mind that, while this study subscribes to the phenomenological research method, as a researcher in this investigation the brief was to observe and study participants' experiences as they manifested on their own. In other words, the core of this investigation was to learn how Grade Six learners responded to these graphic design materials. The theory underpinning phenomenology was considered, not to lead the investigation, but rather as a basic framework of this inquiry. Sayer (1992:73) notes that, observation which is theory-laden is not necessarily theory-determined. The ideal objective here was to study and report on how Grade Six learners responded on the use of graphic design materials: phenomenology provided the basic framework to achieve this goal. The reason why I chose a phenomenological research method was also because of its ability [to] study participants' lived experiences as experienced by the participant in his or her lived world (van Manen 2007). In particular, it also allows the researcher or interview to go beyond the research parameters. In other words, as shown in this chapter phenomenological interviews are friendly and conversational. The next chapter will present and analyze the research findings.

Preambles and overviews

Preambles and overviews sum up and make sense of chapter contents.

Diagrams and schematics can be used to communicate (or sum up) chapter contents quickly and to show the conceptual relationships between ideas. These must be explained in the text, however.

Examples of preambles

7.5 Recommendations (*Buist p105*)

The first two recommendations suggest further avenues for research into medical reporting, and the third suggests a checklist to assist journalists with medical reporting.

3.8 The role of technology in social structure (*Reddy p44*)

Lawson identifies two ways in which technical objects can be viewed as social (2010: 6)....

1.7 BRIEF OVERVIEW OF THE DISSERTATION (*Somlenze p4*)

It is important to note that this research covers three different broad topics, South African education, literacy and graphic design, and in an attempt to provide clarity, these topics are discussed separately. However, I have tried in my discussions to show (where relevant) their interconnectedness.

Research questions

The research questions are a valuable structuring device which can be used to explain why you are making certain points at any given time.

Yet the findings and conclusions do not need to unfold under the list structure suggested by the research questions.

Example of research questions

(Somlenze p2)

Precisely, my objective was to answer the following research questions:

1. What graphic design strategies could be used to enhance the acquisition of literacy?
2. How do learners respond to such strategies?
3. What implications do the answers to 1 and 2 have for the acquisition of literacy?

From questions to findings

(Section preamble, Somlenze p66)

To discuss these research questions more holistically, this study will look at them in under the following headings: South African education, Literacy, and Graphic design.

(The student is re-grouping the findings so that they now makes sense holistically, instead of being presented in the order initially suggested by the research questions.)

Example of research objectives

(Reddy p24)

2.4.2 Specific objectives

To accomplish the general aim, the following specific objectives were formulated:

- To design and set up an online learning object repository (LOR) for language learners in schools in KwaZulu-Natal;
- To install various freeware re-usable language learning objects (RLOs) in the LOR;
- To test out the operation of the LOR in terms of teacher and learner access to language learning resources;
- To obtain responses from users in terms of its potential for facilitating language learning in schools in KwaZulu-Natal.

Objectives -> process -> chapters

Table 4.2 Cycles of development, objectives and design process followed

	SPECIFIC OBJECTIVES	DESIGN PROCESS
PHASE 4	<ol style="list-style-type: none">1. To design and set up an online learning object repository (LOR) for language learners in schools in KwaZulu-Natal;2. To install various freeware reusable language learning objects (RLOs) in the LOR;	<i>ARTEFACT DESIGN</i> <ol style="list-style-type: none">1. Identification of social need and artefact specifications2. Artefact design and initial testing, resulting in CALL-VLC
PHASE 5	<ol style="list-style-type: none">3. To test out the operation of the LOR in terms of teacher and learner access to language learning resources;4. To obtain responses from users in terms of its potential for facilitating language learning in schools in KwaZulu-Natal.	<i>ARTEFACT TESTING</i> <ol style="list-style-type: none">3. Usability testing of CALL-VLC4. User feedback on CALL-VLC

Thesis structure:

Chapter 5: Artefact design
Chapter 6: Artefact testing

Cataphoric and anaphoric reference

- *Cataphoric* - refers the reader “forwards” to something mentioned later on in the text.
- *Anaphoric* - refers the reader “back” to something mentioned earlier in the text.

Not only do good writers refer forwards and backwards to things in the text, they also sum up and repeat ideas (the reader cannot remember what your research questions were three chapters later!)

Summing up can be “anaphoric” ...

3.8 The role of technology in social structure (*Reddy p44*)

To recap on the above sections, social structure is a network of relationships linking people and material objects to form both the context and product of human interactions.

...or “cataphoric”

Reddy p44)

Lawson identifies two ways in which technical objects can be viewed as social (2010: 6):

Thesis overview

Giving an overview of the thesis in Chapter One (Introduction) is a good example of cataphoric reference (i.e. referring to points which occur later in the text).

It helps the reader to conceptualise the thesis content in advance without getting bogged down in detail.

Signposts

Good writers use “signposts” so that readers do not lose their way in an extended text (i.e. 100-200 pages).

Signposts include chapter headings and sub-headings.

“Chunking” text into paragraphs (or bullets) also provides a kind of signposting.

On a smaller scale, signposts include connecting devices such as “Firstly,... Next,... Furthermore,... In conclusion,...”

Diagrams and flow charts

Diagrams and flow charts relieve the monotony of the text and give the reader a conceptual grasp of the points made in your argument.

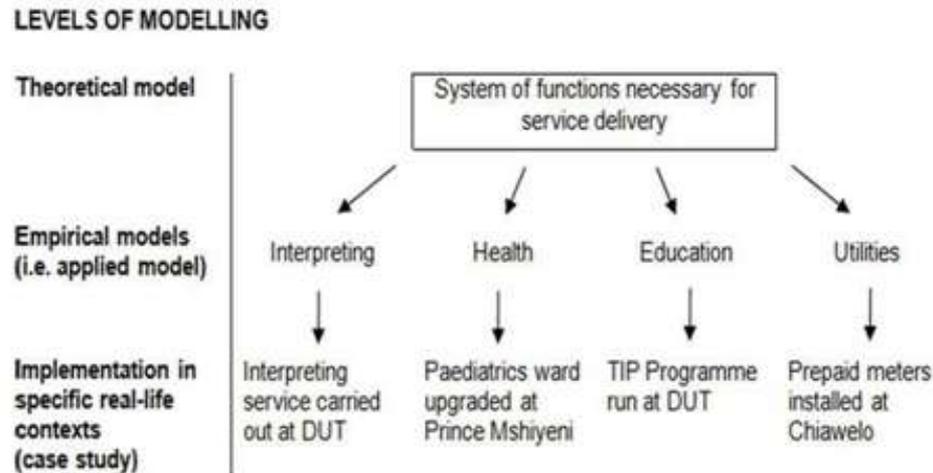


Figure 2.6 Levels of modelling found in models of interpreting and service delivery in general

Tables can convey time frames...

Table 4.1 Phases involved in the morphogenetic cycle

PHASE I	PRE-EXISTING SOCIAL CONDITIONS
	Apartheid education policies led to a literacy crisis in KwaZulu-Natal with limited language learning resources and under-prepared teachers.
PHASE II	IMPACT OF TECHNOLOGY ON SOCIAL STRUCTURE
	Rapidly changing advances in digital technology made cheap and easy access to rich media resources possible via computer and/or mobile technology.
PHASE III	ARTEFACT DEVELOPER'S BACKGROUND
	The researcher's background in Educational Technology and LIS gave him the specific ICT "savvy" and skills for effective artefact development.
PHASE IV	ARTEFACT DEVELOPMENT
	An artefact (LLOR) was developed using technology to solve specific language learning problems capable of being solved by technology.
PHASE V	END USER FEEDBACK
	Various role-players in the KwaZulu-Natal Education landscape were selected to give end-user feedback on the artefact in terms of its ease <i>of</i> use and potential <i>for</i> use.
PHASE VI	FUTURE USE AND DEVELOPMENT
	The next cycle will involve actual use of the artefact in specific educational contexts in order to assess the artefact and make any necessary modifications.

(Reddy p55)

...or sum up conclusions

Table 7.1 Possible conflict of interest relationships

CONFLICT 1	INTEREST SERVED
Commercial funders vs. Medical journal article writers (i.e. researchers)	Recoup costs, earn profits or serve own vested interests Improve academic status - publish or perish
CONFLICT 2	INTEREST SERVED
Medical journal article writers vs. Medical news article writers (i.e. journalists)	Demonstrate value and rigour of research Obtain newsworthy data
CONFLICT 3	INTEREST SERVED
Medical news article writers vs. The public	Disseminate news which will sell newspapers Be better informed to improve decision-making on health/wellness issues

(Buist p103)

Photographs

Photographs add colour and interest, but must be directly related to the thesis topic, as in the example below:



a. Lecturers preparing for the lecture



b. Technicians issuing mobile simultaneous interpreting equipment



c. Students using fixed simultaneous interpreting equipment



d. Interpreters in an interpreting booth providing simultaneous interpreting

Figure 5.2 Interpreting services during Dental Assisting lectures

Headings and numbering

Write to *points*, not headings – use rough headings while drafting and refine these once you have your content drafted out.

Decimal numbering should be used to *organise* content, not to generate it.

If you do *not* use decimal numbering, it is extremely difficult to check whether your points follow logically; moreover decimal numbering performs a signposting function.

Table of contents

The Table of Contents (TOC) is a very useful tool for structuring/restructuring and adding more content (or removing it) *after* most of the thesis content has been drafted.

Once the chapter content has been drafted, you can also use a chapter TOC to refine the chapter structure.

A TOC can be used just before final proof-reading to check that nothing has been repeated or left out.