fifteen **RESEARCH WRITING**

In today's world, it seems that many higher degree students have no previous experience of writing the sort of documents – proposal and thesis – required in graduate research programmes. Consequently, they often feel daunted by the challenge ahead. One of my main objectives in teaching about research writing, therefore, is to make the task seem less daunting – once again, to de-mystify it, to bring it back to earth, to make it manageable. Three strategies I try here are:

- to focus on the nature of research writing
- through organising and structuring, to show how the job of writing a proposal or thesis can be broken down and modularised
- to make sure students understand the expectations of readers of these documents.

The nature of research writing

The points I want to stress here (not in any order of importance – all are important) are:

- Research writing takes place in a scholarly context. Therefore, all scholarly details of presentation, such as grammar, spelling, referencing, formatting, etc., are important and have to be correct.
- The emphasis in research writing is on clarity it is the writer's responsibility to make the
 content clear (this point may need emphasis and discussion sometimes I find the misunderstanding that 'it's the reader's job to figure it out'. While this may be the case for novels,
 creative writing and such like, it is definitely not the case in this writing context. Instead, it is
 the writer's job to make it clear).
- Structure in the document is important it helps to make it easier to write and it certainly helps to make it easier to read (see below).
- Research language should be precise, consistent and accurate when you have found a precise and accurate way to name or describe something, use it consistently. Don't vary the terminology unnecessarily.
- Shorter sentences typically increase clarity.

In other words, the research writing context is not the place for flowery, creative or imaginative writing. That type of writing may fit well in other contexts, but not in this one.

Organising the document - the importance of structure; modularising the writing

It is important to remember that the function of research documents is to transmit information. Making sure that the document has a logical and easy-to-follow structure is an important component in fulfilling this function. Readers need to be able to find quickly the information they seek, so that navigating the document is important. Also, readers will seldom read the whole document through from start to finish without interruptions, instead returning to check something said earlier, etc. Again, navigation becomes important. It is structure, organisation and sections and sub-sections which make navigation possible. The alternative to a structured document, with sections and sub-sections, is one amorphous document, which is hard to read and even harder to navigate. That may be fine in essay writing or in writing in some other context – it is not fine in a research context. The message is clear – organise the document to facilitate understanding.

One implication of this is that logically ordered sections and sub-sections are important, as is the table of contents which brings them together at the front of the document. This table of contents is the 'road map' which makes navigation possible. I regard a table of contents as essential in these documents and I pay particular attention to it when I am reading and assessing.

A second implication of this is that sectioning and sub-sectioning the material modularises it, making it less formidable to write. Once you have a workable and logical structure, with sections and sub-sections, the task is to write each section or sub-section (i.e. each module). This makes the writing task more manageable and less formidable.

The importance of readers' expectations in the research writing context

There are three things to keep in mind here. First, readers don't read these research documents because they want to; they read them because they have to. Second, for students in higher degree programmes, your reader is often (or usually) your examiner, whose approval you need for your proposal or thesis to be accepted. Third, as a consequence of these two points, readers of these documents have clear expectations as to what they should contain and in what format they should be presented.

At the heart of these expectations are straightforward questions, which can be summarised very simply. For a proposal:

- What are you trying to find out?
- · How are you going to do it?
- Why is it worth doing?

For a thesis:

- What were you trying to find out?
- How did you do it?
- What did you find?
- What does it mean, and why was it worth doing? (See later the 'so what' section.)

These questions do not cover all expectations but focusing on them suggests the basic structure for the documents and ensures that other issues (for example, in what context the research occurs, what the background is to the topic and research questions, what the relationship is to relevant literature, etc.) can be dealt with in a logical order.

The research proposal_

Sections 15.2.1 to 15.2.5 deal with proposal writing and suggest a general structure for writing proposals. I have developed this material on proposals more fully in my book *Developing Effective Research Proposals*, the second edition of which was published in 2006, see p.370.. Because of the detailed treatment of proposals given there, I will concentrate most of what I say here now on report writing – i.e. thesis writing, but I make a strong connection between proposal writing and thesis writing.

Proposal-thesis connections_

Everything I want to say about the nature of research writing applies equally to proposals and theses – and there is, of course, a close connection between the two. I stress to my higher degree students that when they have completed an effective and detailed proposal, they have actually 'written' large parts of their thesis. In other words, the effort put into fully developing the research proposal is not simply an additional hurdle placed in the student's path. On the contrary, that effort is a direct contribution to the final thesis.

This is one reason why I place so much emphasis on developing a detailed proposal, which can be quite long. Where particular university guidelines require shorter proposals, the strategy I recommend is to develop a detailed one and then 'shrink' it.

The research thesis

In the present context, I think the thesis itself is best seen as the report of a piece of empirical research. When seen in this way, and when the questions above are emphasised, a logical structure for the thesis seems obvious. Without trying to formularise this structure, a thesis as the report of a piece of empirical research needs to:

- introduce the research area and topic, and identify the research questions
- place these in context and describe any necessary background
- review relevant literature, both empirical and theoretical, and show relationships of this study to the literature
- describe the methods used in the research, including methods used for the analysis of data
- present the results of the data analysis and answer the research questions
- reach conclusions and interpret the findings and conclusions, including discussing implications
 of these findings and conclusions (see below).

For me, these points summarise readers' expectations of a thesis, especially examiners' expectations. I stress to students that the first five bullet points above are not about 'what the student thinks' of any of this material. Rather, the emphasis is on faithfully reporting what was done and what was found. I point out (with all due respect) that, during this part of the thesis, we as readers are not interested in 'what the student thinks' or in opinions. We only want to know what was done and what was found. It is only later, in what I call the 'so what' section of the thesis, that interpretations and opinions come in.

The point here is that there is a big difference between evidence (i.e. data) and opinions. Empirical research is about using data to answer questions, and this is centrally what needs to be reported in the thesis. There is room for opinion, for 'what the student thinks' but, in my view, it should not be mixed up with evidence. At this level, readers (i.e. examiners) do not want to see evidence and opinion mixed up. To put it another way: As a reader, I need to know whether what I am reading is evidence or opinion, and separating these out is an excellent tactic to ensure they don't get mixed up. So, it is not that we are not interested in what the student thinks. It has its place, but we just don't want it mixed up with reporting what was done and what was found. I think the best place for it is in the 'so what' section.

The 'so what' section_

By 'so what' here, I mean consideration of such questions as:

- What do you think about what you have done and found?
- What does it all mean?
- How would you interpret what you have found?
- · What implications do you think it has? And so on.

There is definitely room for dealing with such questions as these in a thesis but not, as stressed above, when doing so is mixed up with the presentation of evidence. Indeed, sometimes I think thesis writers sell themselves short by not having a sufficiently strong 'so what' section. (Perhaps we have made them too defensive!) As a result, some theses end with a whimper – or, at least, certainly not with a bang. That is disappointing, especially if the reporting that precedes the ending is well done.

A tried and tested framework for dealing with this section of the thesis might cover such issues as:

- discussion here the results and conclusions can be discussed, perhaps in the light of the literature which was reviewed earlier in the thesis
- implications implications of what was done and what was found can be considered here and they often lead naturally to recommendations
- recommendations a useful three-part framework here is:
 - o recommendations for practice
 - recommendations for policy
 - o recommendations for further research.

The latter two – implications and recommendations for further research – are both important in their own right and give the writer the opportunity to reflect critically on the methods used in the study. As long as this is not done too defensively, I find that it is usually approved of by examiners.