

Introduction to report writing

In producing a report you are normally addressing the following questions:

- 1. What did you do?
- 2. Why did you do it?
- 3. How did you do it?
- 4. What did you find out?
- 5. What do the findings mean?

Report writing is different to essay writing since:

- 1. Reports usually utilise primary rather than secondary data
- 2. They are more formally structured
- 3. You may not be required to develop an argument through the report

Despite the distinction that an argument is not formally required, the best reports flow from one section to the other where the sections may be seen as a series of linked sections.



Tone and audience

This is one of the most difficult aspects of university report writing. Write your report from the perspective of someone who is qualified in the academic field. In this context, you don't need define key terms (such as climate change) unless they form an important part of your report. However, some definitions of terms such as "wetland" vary, so therefore would be important to include. Another example would be the clarification of how you are defining a word like "sustainability", since that definition is often varied and conflicting.

Report structure

Reports written in Geography may have the following sections:

Introduction

Methods

Results

Discussion

Conclusion (generally including some reflection on needs for further study)

This is therefore known as the **IMRDC** structure of report writing and there are numerous more lengthy guides on how to use this style.



Additional sections may include:

- Executive summary (placed before the introduction)
- Study area (placed before methods)
- A literature review

Introduction: Outline why you did what you did. Particularly in a short report where there is no literature review section, this is the place where you place the work in context. Without going overboard, attempt to highlight why the particular location of study (whether a "place" or a "space") is particularly important. Most studies will be undertaken in South Australia and close to Adelaide. Justify (other than simply on the basis of cost and convenience) why this is the case. For example, are the environmental phenomena and issues experienced here either unusual (e.g. a rare species or ecosystem or a great example of good management) or examples of similar phenomena and issues elsewhere? The latter means that your report acts as a case study.

Methods: This section is not always required, so check with you lecturer or supervisor. This section may appear the easiest to write (i.e. simply re-stating methods from the literature). However, the best methods are the result of a careful reading of the literature and a choice between different methods. If, at the end of your study, you concluded that different methods should have been used, this will be outlined in the discussion and conclusion but could be hinted at here.

Results: Describe what you found but do not interpret the data. This is left to the discussion. Deciding what goes in the results and discussion is a challenge. However, restrict your results section to a strict reporting of the facts. Note that for longer reports (including theses) it can be better not to report every aspect of your work. In doing this it is important not to be deceptive. You don't have to include everything you did since you are being judged on the quality of your work as much as the quantity.

Discussion: The fun part! Here you discuss what your findings mean. If the discussion follows a similar structure to the results this will make it easier for the reader to follow. In the discussion you place the results in the context of the literature. It is important not to repeat the results. Here then cross-referencing is important. For example you might say "The density of aquatic plants was higher in the River Torrens downstream of the industrial area at site 1 (see section 5.2, figure 5). This contrasts with findings of previous authors in Adelaide (Wang and Li 1998) and other Australian cites (Smith and Jones 2002; Nguyen 2005)."

Conclusion: Often relatively brief, but the conclusion provides an important opportunity to reflect on the findings and to indicate where improvements could be made or where future research could be directed. The conclusion is not simply a summary of the rest of your



report.

Writing conventions

- Names of organisations should be spelled out at first use, with the abbreviation placed in parentheses. Abbreviations can then be used following the first usage for example: "The United Nations Children's Fund (UNICEF)."
- Note that an apostrophe is not needed where dates are expressed in plurals as the numeral represents an abbreviation. Therefore use: **1950s** and not 1950's.
- There are no set rules for when to use numeral (e.g. 100) and when to spell out numbers (e.g. ten). However, it is generally agreed that for large numbers (e.g. more than ten), numerals are used. For example: "There are five states in Australian with desalination plants. The largest capacity plant can produce 150 GL of water."
- For calendar years it is preferable to use CE, an abbreviation of "common era" rather than AD, an abbreviation of *Anno Domini* meaning after the birth of Jesus Christ.

Units of measurement (e.g. km)

- There is an international system of measurements (known as SI units) and these are outlined here: www.bipm.org/en/si/si/brochure/general.html.
- It is important that these are followed to avoid confusion. Some commonly used SI units in Geography are the metre (m) and the kilogram (kg) and the derived unit degrees centigrade (°C).
- Numerals and units of measurement require a space between them, e.g. 1 km, 1000 litres. SI units do not change when expressed as plurals, e.g. 1 cm and 5 cm are both correct, 5 cms is not correct. One unit not recognised by the SI is the litre (and its derivatives) which is used to denote the volumes of liquid. So that, particularly in Australia, the use of ML (=megalitre) and GL (gigalitre) are widely accepted. Importantly, avoid confusion between ml (millilitre) and ML (megalitre).
- Ensure that units of measurement and the amount appear on the same line, rather than separated at the end of a line. (In Microsoft Word this is achieved by holding down "Ctrl" and "Shift" and pressing the space bar).

Naming conventions

- Use Latin names for species to avoid confusion. For example, there are a number of different tree species called blackwood, but there is only one *Acacia melanoxylon*.
- Species names must be *italicised*. When using Latin names, e.g. *Acacia melanoxylon* for species, the genus name (*Acacia*) is capitalised but the species epithet *melanoxylon* is not.
- You may also provide common names but provide these in parentheses, e.g. *Acacia melanoxylon* (blackwood).
- Note that common names are not capitalised.



- Note that names higher of higher taxonomic entities (such as Families, e.g. Myrtaceae) are **not** italicised.
- Some terms where mistakes are commonly made with capitalisation: Southern Hemisphere
 Australian Government
 south-east Australia (south-east is not a proper name)
 20th century (no capitals)

Figures and tables

Figures should not be included to make a report look pretty, but rather to illustrate a point. As such, you must refer to the figure in your text. Figures and tables can summarise a large amount of key information. Modified or composite figures and tables (from more than one source), indicate the author has synthesised the information and demonstrate higher level analysis.

- Place the figure or table within the text, not at the end.
- Always refer to the figure in your report, e.g. "There has been an increase in rainfall variability over south-eastern Australia over the past two decades (see Figure 1)"
- Titles for tables are called "headings" figure titles are "captions".
- Figures should be ordered (and numbered) according to first usage (Figure 1 should come first and be referred to first in the report).
- Provide the source of your figure (e.g. UNEP 1995)
- Maps must, at a minimum, include: a legend, a scale, a north arrow and a border

Below are "bad" and "good" examples of figures used in a report:

The "bad" (no border, uninformative caption):



Figure 1: 18 Mile Swamp



The "good" (border enhances appearance, caption is informative and referenced):



Figure 1: 18 Mile Swamp, North Stradbroke Island. Photo taken on 17/5/2007 facing north-north-west. Note the introduced floating aquatic plant *Nymphaea* sp. in the foreground. (Photo: John Tibby)

Other tips:

- Avoid using the phrase "looking at". Instead use "examining" which implies a more analytical/critical approach.
- Statements are generally more powerful if, rather than saying "I think that...", they
 are simply made (with appropriate referencing).
 For example, contrast: "I think that conservation of endangered species is an
 obligation of all people" with "Endangered species conservation is an obligation of all
 people (Ehrlich 2010)"
- Don't overuse the term "issues" which is in some ways quite bland and value neutral. Where appropriate use terms such as "problems" or "challenges".
- Do not use terms which are gender-biased such as "mankind" or "chairman".
- Never use the term significantly unless this is measured statistically.
- Watch out for "clever" auto-correction and its effect on names, e.g. *Eucalyptus globulus* becomes *Eucalyptus globules* in Microsoft Word.
- Avoid the use of the slash "/" which is often unclear. Use "and", "or" or "and/or" instead.



Some additional guides:

Hay I (2012) Writing a report. In: Hay I. *Communicating in geography and the environmental sciences*. pp. 30-56. Oxford University Press, South Melbourne, Vic.