INTRODUCTION TO REPORT WRITING

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What is a report?
A report is ...

- A form of professional documentation.
  - A working document that could be one page in length or 300.
- An account of an investigation into a problem, activity or topic,
  - with suggestions for change or future action.
- Designed so necessary information can be easily extracted.
- A document that may be read by different readers for different purposes and needs.
Introduction

Report writing formats

Report writing process

Technical and scientific writing
Types of reports

- Experimental report
- Field report
- Investigation report
- Proposal report
- Feasibility report
- Progress report
<table>
<thead>
<tr>
<th>Report Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>title page</td>
</tr>
<tr>
<td>abstract</td>
</tr>
<tr>
<td>contents page</td>
</tr>
<tr>
<td>lists of figures and tables</td>
</tr>
<tr>
<td>glossary of terms</td>
</tr>
<tr>
<td>introduction</td>
</tr>
<tr>
<td>middle or body</td>
</tr>
<tr>
<td>conclusions</td>
</tr>
<tr>
<td>recommendations</td>
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<tr>
<td>acknowledgements</td>
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<tr>
<td>references</td>
</tr>
<tr>
<td>appendices</td>
</tr>
</tbody>
</table>
Abstract

- Extremely important.
- It provides an overview of the most important aspects of the report.
- Less than one page – between 50 and 250 words.
  - The abstract should clearly and briefly state:
    - what was investigated and why,
    - how it was investigated,
    - what was found and
    - what are the major conclusions and recommendations.
Abstract

This report examines electric vehicle technology (EVT), possible future technological developments, and the environmental, economic and social impacts of EVT. No current electric vehicle can equal the performance of an internal combustion engine. The limitations of lead batteries have resulted in new developments in different types of batteries, such as; AC motors, Hybrid vehicle technology, fuel cells and charging by induction. A country adopting electric vehicle technology will need a comprehensive network for recharging and an increased generating capacity. Reduced emissions are not guaranteed due to an increased demand for electric power stations. However, there are substantial benefits for countries using hydropower. Social attitudes are expected to show a preference for zero emission vehicles. Improved design and increased demand will make electric vehicle technology competitive in the next 20 years.
Introduction

- First section in main part of report.
- Contains background and purpose of the report.
- Outlines the manner in which the information will be presented.
- Usually does not include any findings or recommendations.
## Introduction example

| Introduce the topic | **1. Introduction**  
Electric vehicle technology is currently the focus of much research in the effort to find an alternative to the internal combustion engine. |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>State significance of the topic. Often expressed as a problem statement.</td>
<td>Demand for cleaner vehicles has arisen due to unacceptable pollution levels and the obvious need for sustainable and renewable uses of energy sources.</td>
</tr>
</tbody>
</table>
| Provide an outline of the report.  
A short introduction like this example would be presented as one paragraph.  
In some courses your opinion/judgement/key finding of the topic would be included in the introduction. | This report summarises the current limitation of the traditional lead battery and presents new developments in different types of batteries. The potential and the problems in implementing an electric vehicle network nation-wide are also discussed. |
Main Sections: General Report

- Discusses a specific topic and related achievements or problems.
- Middle sections would cover:
  - the history of a topic;
  - current situation;
  - current problems and influences;
  - recommendations and future directions.
Experimental Report: Original research or a lab report

- Describes the experimental work in detail.
- Draws conclusions from the data.
- Places conclusions in the context of other related work in the area.
- Typical sections are:
  - theory
  - methodology
  - results
  - discussion.
Practical work report

- Describes the activities of a company and your work within it.

- Typical sections may be:
  - description of where you work – what the organisation does or produces, layout, staff;
  - description of the work you did;
  - description of the work you observed;
  - general comments on the building, layout, technical facilities, amenities and industrial relations issues.
Conclusions and recommendations

- Concluding statements should relate to the impact of your study and how knowledge has been furthered.

- Recommendations: consider the question of whether the original aims were achieved.
  - If not: what alternative action might be considered.
  - If achieved: what further questions may or should be resolved.
5. Conclusion

Electric vehicle technology will become more competitive in the next twenty years as the demand for zero-emission transport increases and as electric vehicle technology improves. Consequently, many countries will experience major structural changes to their power supplies networks along with an increased number of power stations. While for hydro-electric power the benefits of zero-emissions are evident, the current challenge of electric vehicle technology is to equal the performance of the internal combustion engine.
Report writing process

- The report writing process concerns a series of questions that you need to have answers for before you start.

- What is the most important question you must ask yourself before you begin work on your report?

  - Who is the intended audience?
Audience analysis

- Why have they asked for the report?
- What do they need to know?
- How will they use this report?
- What knowledge do they already have?
Task Analysis

What type of report is required?

How long is the report?

What is the central problem you will investigate?

What is the aim of the report?

What are they key issues that need to be analysed?

What information do you need to collect?
Investigation

What questions do you need to answer?

What types of information do you need to collect?

How will you find this information?

How will you record this information?

How will you evaluate this information?
# Note-taking

**Bibliographical information:**

- author, year, title, volume and issue no.s, publisher, place published

**State the aim or main argument of the source.**

Include quotations

“....” (p.75)

Summarise/paraphrase in your own words

Include your thoughts:

usefulness, place in report, questions, comments, new ideas.
Using outlines — Writing in layers

- Brainstorm or mind map ideas and information on the topic or task.
- Form a draft TOC.
- Write descriptions for each section.
- Write draft sections.
- Revisit and revise the above often!
- Know your weaknesses, get feedback and advice.
Ensure:

- Body sections are organised logically.
- Headings are helpful and informative.
- Definitions, explanations of terms and claims are clear and sufficient.
- Visuals help explain the information in your text.
Using visuals

- Make sure your visuals are clear and easy to read.
  - Ensure that they’re not just ‘noise’ obscuring your points.
- Introduce your visuals **before** they appear in your text.
- Give the title of a table **above** the table.
- Give the title of a figure **below** the figure.
  - Reference all visuals.
Editing

for content

for structure

for grammar

edit and edit and edit and edit again
The structure of a short report

Terms of reference
(What have I been asked to find out?)

Procedure/method
(How did I set about finding it out?)

Findings
(What did I find out?)

Conclusions
(What conclusions can I draw?)

Recommendations
(What action should be taken?)
A good report

‘Yes, I’ve been down to the photocopier again. I cleared a paper jam, and it’s working all right now although the print is rather faint. I think we should add some toner soon and look into this jamming.’

This is a good report. You can see that the technician has:
- understood the brief (to check the state of the photocopier);
- carried out appropriate research (a personal check);
- taken appropriate actions and made accurate observations (cleared jam, print faint);
- drawn sensible conclusions (needs toner, still a problem with jamming) and
- made reliable recommendations (add toner soon, investigate jamming).
Engineers Guide to Cats

http://www.youtube.com/watch?v=mHXBL6bzAR4
What is report language?

O Bridge thou art like a fairy structure
Arching o’er the sea
I fancy that, in my wild dreamings
Your spires pierce the sky.

The bridge stood silhouetted in the fading twilight, reminiscent of a forgotten love. He felt the ocean breeze flit over his face and then a soft arm draped over his shoulders.
The steel structure of the Harbour Bridge has strong antecedents in Imperial Architecture. Its historic roots lie in the early post-Victorian era when such structures symbolised commerce and empire.

1. The Sydney Harbour Bridge was built in 1934.
2. It is a cantilevered box steel construction, massing 1,220,124 tonnes.
Technical writing style

Be clear
• aim for shorter rather than longer sentences

Be concise
• use shorter words and phrases

Be aware of the differences in synonyms
• They can make a great deal of difference in your writing

Be precise and accurate
• use the right words
Avoid wordiness

- Slowly but surely, by keeping our noses to the grindstone we are beginning to take the bull by the horns and get down to tin tacks. In this day and age, we need to get the big picture without further delay, so that at the end of the day our bottom line will be none the worse for wear.

- By persevering, we are making progress. However, we need a broad view of the problem immediately.

(Adapted from Eunson 1994)
<table>
<thead>
<tr>
<th>Useless words</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ active consideration</td>
</tr>
<tr>
<td>□ mix together</td>
</tr>
<tr>
<td>□ complete stop</td>
</tr>
<tr>
<td>□ perfectly clear</td>
</tr>
<tr>
<td>□ firmly commit</td>
</tr>
<tr>
<td>□ totally useless</td>
</tr>
<tr>
<td>□ actual fact</td>
</tr>
<tr>
<td>□ light snack</td>
</tr>
<tr>
<td>□ closely scrutinise</td>
</tr>
<tr>
<td>□ past history</td>
</tr>
<tr>
<td>□ component part</td>
</tr>
<tr>
<td>□ exact same</td>
</tr>
<tr>
<td>□ terrible disaster</td>
</tr>
<tr>
<td>□ grave emergency</td>
</tr>
<tr>
<td>□ unfilled vacancy</td>
</tr>
<tr>
<td>□ join together</td>
</tr>
<tr>
<td>□ completely accurate</td>
</tr>
<tr>
<td>□ final destination</td>
</tr>
<tr>
<td>□ fully recognise</td>
</tr>
<tr>
<td>□ definite decision</td>
</tr>
</tbody>
</table>
Instead of ....... Use .......

- a considerable amount of
- a majority of
- a number of
- are of the same opinion
- at this point in time
- based on the fact that
- despite the fact that
- due to the fact that
- first of all
- with a view to
- through the use of

- much
- most
- many
- agree
- now
- because
- although
- because
- first
- to
- by
Instead of ...... Use ........

- for the purpose of
- has the capability of
- in many cases
- in order to
- in the event that
- on a daily basis
- red in colour
- take into consideration
- the question as to whether
- needless to say

- for
- can
- often
- to
- if
- daily
- red
- consider
- whether
- don’t say it!!
As far as our own observations are concerned, they show that in order to obtain completely accurate results it is of vital importance that we make absolutely sure that the specimens in question are securely fastened to the plate in the time period that occurs prior to the switching on of the machine. In our opinion it is not an unjustifiable assumption that an innumerable number of unnecessary errors related to measurement could subsequently be completely and fully avoided if the procedure which has just been outlined is faithfully complied with to the letter. With reference to these measurements, it is worth pointing out that if conditions are such that the number of specimens upon which the test is being carried out is less than the desired minimum number of twenty, measurements for the purpose of establishing baselines values may definitely not be performed accurately or indeed with any degree of certainty.
Our observations show that to obtain accurate baseline values 20 or more specimens must be fastened to the plate before activating the machine.
Conclusion

- We’ve examined:
  - Report writing formats (broadly, check with your school for further details).
  - The report writing process, and
  - Technical and scientific language
For a copy of the slides:

- Please go to: 
  
  gettingstarted.unsw.edu.au/orientation
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