

Technical Writing

Week 1: Structure of Engineering reports: Step by Step

A model of engineering reports

Title page(s)
<p>Declaration of authorship</p> <ul style="list-style-type: none"> ○ Use the template provided by your university (e.g. Kontext 1)
<p>Abstract</p> <p>A descriptive summary of the work undertaken, without any figures or tables. Abstracts appear on its own page at the start of the report</p> <ul style="list-style-type: none"> ○ Introduction – 1-2 sentences place work in context ○ Problem/purpose/ aim: brief statement of objectives of work ○ Method: how was the study undertaken; outline methodology and tools used ○ Results/ evaluation/ conclusion: 1-2 sentences stating most important results and conclusions and/or recommendations <p>Style is impersonal (written in the third person)</p>
<p>Executive summary</p> <p>Concise overview of the report, written specifically for an audience who would not have the technical or scientific background to understand the report itself, or alternatively, are too busy to study the whole report. The style and vocabulary therefore are different as it is intended for ‘non-technical’ readers. Executive summaries present the entire information in essence (like a mini-report in its own right). Important figures and tables can be included and have to be numbered separately from the main report.</p> <ul style="list-style-type: none"> ○ Purpose/ aim ○ Method(s) ○ Results ○ Conclusions ○ Recommendations ● Written in present tense (the aim of this report is... this report evaluates...) ● This is the very last thing to be written
<p>Preface (optional)</p> <ul style="list-style-type: none"> ○ Can contain some personal comments or experiences or thoughts /acknowledgements (thank your patient dog etc). This section does not contain any technical or academic aspects.
<p>Table of content</p> <ul style="list-style-type: none"> ○ List the headings of the report and the page on which each begins. Make sure that your headings are informative so that the reader can anticipate the content of each section.
<p>Table of figures and tables</p> <ul style="list-style-type: none"> ○ List any figures and tables, giving the page number of each
<p>List or glossary of abbreviates/ acronyms</p>

Introduction

1. Background/ Context/ show how your report builds on previous research ^a
2. Objectives and aims, purpose, research problem
3. Provides overview of the structure of report

👉 **Pagination:** it is common for the introduction to start on page 1. Preceding pages are given lowercase Roman numerals (i,ii,iii,iv, v etc). Appendices are usually paginated separately from the main text and from each other. The pages can be numbered A1, A2 for Appendix A, for example.

Literature review / theory (applies probably only to PAIND)

- Discuss – in a critical way .briefly some of the most important writings on the subject, discussing other researchers' main findings. Discuss how previous research connects with and leads up to your research.

Method (ology)^b

In this section you present how you conducted your research, what methods you used. Did you replicate methods used by other researchers? Even if your tutors told you which method to use, include these in the report.

- Materials and testing procedures
- Other data collecting tools (survey, interviews etc): state why each of these tools are chosen/ explain the rationale of your chosen methodology

Presentation of results

- In this section you present your main findings briefly, under headings if appropriate
- If appropriate compare with other research/theory (literature review)
- Be honest with your results

Discussion (this is a longer section and sometimes part of the section above)

- Analyse and explain findings. Were they what you expected? Were they consistent with your hypothesis? Did they fit the theory or seem to disprove it? How are they significant? It is more important that you understand the results than that your hypothesis as proved right or wrong.

Conclusions

- Summary of findings
- What does that mean? (this must be clearly justified/ refer to theory if possible)
- What problems can be identified? How could research have been improved?
- Are there any issues for further research?

Recommendations (if required)

- Outlines (often in bullet point form) actions or solutions to the problem

References

- Only works that are cited can be listed here. Follow the APA style standard
- Some authors include a bibliography which list sources that were not cited (directly or indirectly). This would be a separate list.

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Engineering & Architecture

Appendix^c This section provides any essential extra material, such as questionnaires, tables and figures that did not appear in the main body to clarify the text. You need to refer to the relevant part in your appendix in your report to show its significance or reason you included it.

- a A background chapter may follow the introduction if this element is not covered in the introduction
- b You might select appropriate headings, for example for a laboratory report it might be Theory/ Method/ results. Important is that the headings describe the work conducted
- c Some people call this part 'Annex' or 'Addendum'; if there is more than one appendix the heading is *Appendices*