Technical Report Writing: An Overview

This module provides an overview of the function and form of a typical technical report.

FUNCTION

Technical reports are used widely in the engineering profession to communicate project details. Given the variety of work environments that engineers find themselves working in, the scope and content of reports is limitless. However, regardless of field or focus, a technical report will typically include text about the task (organized into descriptive, titled sections) and often a set of graphs, tables, and figures to support the text. Technical reports should follow an organized structure to enable readers to locate information quickly. When well written, a report will be easy to read and concisely convey your message.

Audience and purpose must be kept top of mind when writing technical reports. Determining what information you need to convey (purpose) and who needs to be able to understand it (audience) is essential before you start to write. You need to be sure the language used and level of detail provided is appropriate and understandable. A good technical report is one that enables the reader to grasp the message fully and enable others in the field to repeat the process under similar circumstances, if applicable.

A good piece of technical writing should:

- allow the reader to locate information easily – i.e. table of contents with descriptive section titles
- provide the context and background for your work, research and/or findings
- provide the methodology used such that others in the field could repeat the process, if applicable
- "speak" based on results, not opinions
- have clear figures and tables that expertly convey relevant information
- be organized to allow the reader to gain optimal understanding of your work

FORM

Organizing technical report content into titled sections allows readers to navigate easily within the document. The format of every technical report will not always include the same sections. However, reports will typically follow the same general format, as follows:

Front end information

The first few pages contain organizational and summary information; including, but not limited to:

- Title and author information
- Table of Contents
- List of figures and tables
- Acknowledgments
- Summary or abstract

Report body

The report body is where you will include all the detail, description, conclusions, and recommendations for the task. Including, but not limited to:

- Introduction
- Background and context info
- Methodology, results, analysis, and discussion of findings, divided into appropriately titled sections and subsections
- Conclusions
- Recommendations

Back-end information

Closing information, including:

- References
- Appendices

SUGGESTIONS WHEN WRITING

The following suggestions will help you create a good piece of technical writing that will both keep the reader's attention and provide all the necessary detail and explanation expected when reading.

- **Avoid the use of jargon**.   Jargon is the specialized vocabulary used in the profession that not all readers will understand. Using jargon may decrease the readability of your text and distract from the main focus. If you chose to use jargon, be sure to keep the audience in mind.

- **Use simple sentence structure** – Where possible, keep your sentences simple and concise: Subject – verb – object.

- **Avoid "low information content"** – that is, unnecessary wordiness created by adding extra words that do not convey any new information or provide further clarity to your sentences. For further information on this, refer to the module, *"Writing with brevity – why less is often more".*

- **Provide links between text and visuals** by always properly cross-referencing figures and tables in the preceding text.

- **Choose appropriate voice and point of view** – Within the realm of technical writing, there are different combinations of *point of view* and *voice* that are used. Depending on your professor's preferences or where the document will be published, you may be asked to write using a specific voice and point of view. For example, you may be asked to write using first person active voice, or in contrast using third person passive voice.   Thus it is very important that you can distinguish amongst the various combinations and more importantly, be able to *write* using different the stylistic combinations. For more information on voice and point of view, see the module "*First vs. Third, Active vs Passive - Point of View and Voice Explained.*"