

# PREPARING A TECHNICAL REPORT



The purpose of a report is to give an account of something, to offer a solution to a problem, or to answer a question (Kalucy & McIntyre 2004).

For scientists and engineers to make valuable contributions to the sum of human knowledge, they must be able to convince readers that their findings are valid (can be replicated) and valuable (Last 2019).

... experimental reports are close to the heart of the accountability process, for experimental reports present primary accounts of empirical experience (Bazerman 1997).

## What is report writing?

Report writing usually goes hand in hand with research. Usually a report is done in order to get a better understanding of a topic or concept. Report writing can refer to giving an account of events that have already occurred (something that has taken place).

Reports are not the same as essays because they are written differently and do not contain as much opinion. Report writing is very structured and is supposed to be done a specific way. Knowing how to write a report is a very important skill for your time at the University, but it is also a skill that can be used in many careers.

## How do I write a report?

### TYPES OF REPORTS

Before you start writing it is important to know what kind of report you are going to write. This will help you structure your report and know what you are trying to accomplish. According to Anigbogu and Ahumareze (2017) reports can range from a short memo to a lengthy one such as progress reports, health and safety reports, cost-benefit analysis, proposals, research and field reports and so on. These authors went on to state that reports can also analyse and evaluate results from experiments in fields or laboratories.

The three types of reports are:

#### Experimental reports

This reports on the experiment conducted.

#### Technical report

This is a problem solving report; it aims to suggest solutions to a problem.

#### Progress report

This reports on how a project is coming along.

## PARTS OF A REPORT

### 1. Cover page

The cover page should include a brief statement, which describes the aims of the report. It should include:

- Name of the author (student)
- Student number
- Due date
- Subject
- Title of the report

### 2. Table of contents

The table of contents should have a list of each section of the report and its corresponding page number(s).

### 3. Terms of reference

It is important to know why a report is being done. Be sure to include the following in your report:

#### a. Orientation

- State the author of the report.
- Who asked for it?
- When is it due?

#### b. Purpose of the report

When writing doing a report, it is important for the reader to know the significance of the report. Be sure to make sure you answer the following questions:

- Why is this report needed?
- What are the benefits of this report being done?
- Why is this topic of any concern?
- Who will this report be relevant to?

#### c. Statement of the problem

Give background information on the problem you are reporting on. Define its nature, its significance, and its history.

### 5. Procedure

It is important that a reader knows you have credible sources for your information before reading it. You need to let the reader know that you have a solid and evidence filled report. This phase indicates clearly the processes and tools used to gather information for the report. There are five popular methods used to gather information (many are used in combination so that the most relevant information is gathered), which are:

#### a. Reading

This is getting published information from libraries, the internet, articles, journals, encyclopedia, etc.

#### b. Observation

This is done by witnessing a situation, viewing a process and recording events.

#### c. Interviews

The idea is to discover appropriate facts from the primary source (the person with the knowledge).

#### d. Questionnaires/conducting a survey

This involves getting written answers to questions (written) asked.

#### e. Experimenting/participatory

This partakes recording the process and results of an experiment with an aim of changing or proving certain aspects of the experiment.

### 4. Aims of the report

State what you are trying to accomplish by writing doing this report. Make sure someone reading it knows why you wrote it.

### 6. Discussion

This part reports on what you found during your research. It is your job to interpret and analyse the information in regards to fitting your report. The discussion section is the bulk of your report. It should involve all the evidence and arguments you are making. The rest of the report is acting in a supporting role to your discussion section. The discussion section is divided into three areas: findings, analysis and synthesis.

#### a. Findings

In this phase you present the information gathered while conducting research. The collected information is presented as is.

#### b. Analysis

This is the description of the process in which the data is analysed. This phase includes observations about events that took place and how you interpret them. This is the important phase of your writing where you engage with data collected and explain in great details. You should show your own understanding of the data collected.

#### c. Synthesis

This is where you bring information in that supports your interpretation of data. You also use theories that support the topic you are writing about. It is important to note that this is the phase that contains the major content of the report. It is important to divide, where applicable, the findings into subheadings to maintain a logical flow of ideas.

Literature suggests the following questions may be useful when preparing for argumentation in the Discussion Section:

- Who said what about it?
- Where did they say it?
- What was the context in which they did this?
- How does it compare or contrast; support or challenge my thinking on the topic?

### 7. Conclusion

The Conclusion is a summary of key points drawn from the report findings or discussion part. It should not be word for word what you said in the report. You should find a new and creative way to say the same thing that ends up leaving the reader with a profound understanding of what the report was supposed to accomplish. However, be sure not to include any new information. The conclusion must be written in your own words.

### 8. Recommendations

Recommendations are required for some reports and could be included as part of the conclusion or done separately. When you recommend you suggest what could be done to improve from the findings of your investigation. Some reports recommend solutions to a problem presented in the report. This is especially true for a problem solving report.

### 9. Reference List

Reference list is about acknowledging sources of information presented in the report. This must be included in all reports because in order to write a report you must have done some research. If you use any ideas that are not your own, you must cite them. If you have used any references and did not acknowledge them, you will be accused of plagiarism, which is a serious offence that could lead you to be dismissed at University.

For more detailed on information on referencing please refer to the Writing Centre.

## BIBLIOGRAPHY

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## AUTHORS

Thembinkosi Mtonjeni  
Luvuyo Kakaza  
Puleng Sefalane-Nkholo



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