

LEARNING DEVELOPMENT

Centre for Teaching and Learning (CTL)



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

Reports

A report **presents specific information and evidence** in the **analysis a problem**, and often **suggests a solution**. There are many types of reports we use at university, however the two most common types are research reports and lab (or field) reports.

The purpose of a **research report** is to demonstrate a critical awareness of a particular field, topic, or issue. This is achieved by addressing a particular research problem or question, and by applying an understanding of research theories and techniques. Research reports are commonly used in business and social sciences.

In the sciences, students are often asked to write **lab and field reports**. The structure, style and content of these scientific reports vary to general reports or research reports used in other subject areas. The purpose of scientific reports is to present information about the process and results of scientific research.

Regardless of the report type, there are some common language features to consider when writing a report. These include organizing information in a logical order, uses statements to link information and create flow between sentences, using reporting verbs when introducing evidence, and using specific and accurate verbs for identifying actions and processes. Reports use non-emotive, critical and formal language. Also, given the sequence of information in a report, they can use past, present and future tense in their different sections.

Learning Development

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Report Structure:

Sections of a Research Report	Sections of a Lab Report
<p>Title Page and Table of Contents</p>	<p>Title and Author Details</p>
<p>Executive Summary</p> <p>This section provides a brief overview of the whole report, by writing a summary of each section in the same order. Don't just describe the structure; summarise the key information from the sections. This includes identifying the context; the research problem; key literature, theory or approaches used; and the main conclusions.</p> <p>Don't refer to any figures or cite any references. If it's too long, omit anything not essential in each section of the report.</p>	<p>Abstract</p> <p>This section provides an overall summary of report, as well as a brief description of the:</p> <ul style="list-style-type: none"> • Aims/objectives of the research • Methods used • Your results (findings) • Your conclusion <p>Usually, this section does not include references, and is approximately 200 words or less.</p>
<p>Introduction</p> <p>This section identifies the specific research question or problem that will be addressed in the report. It also highlights the context of the research question and problem, noting why is it significant or if there is a gap in current research or practice. Contextualising the research involves more than just providing background information, it allows you to offer descriptive information and locate the work in a critical way.</p> <p>The main objectives of the report, and how they will be achieved, are also outlined here. The introduction notes main findings and conclusions in the work, and briefly indicates structure of the report.</p>	<p>Introduction</p> <p>This section introduces the topic, and provides background and context for the research. It can refer to existing literature/research, and should answer the following questions:</p> <ul style="list-style-type: none"> • What is the nature of the study? • Why is the study important? • What background information is necessary for the reader? • What previous studies found in this area • Is there any special terms/concepts/methods that need to be defined? • States the aim (and any hypothesis) at the end of introduction
<p>Literature Review</p> <p>The body of the report has three jobs identify the problem (literature review), review the data (discussion), and address solutions (conclusion and recommendations).</p> <p>This section helps to describe the problem. Building on the context and problem identified in the introduction, the literature review involves conducting extensive research into the area to gain an understanding and analysis of the issue, and potential resolutions that could be applied to your case/context.</p>	<p>Materials and Methods</p> <p>This section describes methods and materials used in the research. The information is presented in sequence – usually as a step by step procedure. The section can use subheadings if appropriate (i.e. sample, materials, procedures/methods, analyses).</p> <p>Be exact and specific about information (i.e. don't write "at room temperature" but use state a specific degree/temperature). This ensures the experiment/research can be reproduced. This section also justifies the method choice.</p>

<p>Discussion (Findings and Analysis)</p> <p>This section involves drawing on your synthesis of readings in the literature review, to help decide how you incorporate evidence/research into your discussion of the issues and potential resolutions.</p> <p>This involves identifying relevant findings from the theory and examples researched in the literature review, and considering their applicability to the case/context/research problem you are working with to identify the best possible solutions.</p>	<p>Results (Findings) <i>Write this section first – immediately after conducting the research.</i></p> <p>This section presents the data you collected. It presents the findings clearly and accurately (i.e. correct units of measurements). It describes the findings only – do not explain the meaning or interpretation of the results.</p> <p>Any descriptions of the results must be backed up with the data. For example, “the treatment was 50% more effective” rather than “the treatment was effective”. Results are written with reference to relevant graphs, tables or figures</p>
<p>Conclusion</p> <p>There can be plural conclusions reached through your discussion of the case/research problem. Start with the most important or significant conclusion first. Alternatively, the order of conclusions can follow the order topics were discussed in the literature review and discussion sections of the report.</p> <p>Conclusions should be precise and specific (not vague). This section can also identify possible limitations.</p>	<p>Discussion</p> <p>The discussion is the most important (and usually longest) section of your report. It provides interpretation of data (summarises material from results as necessary for context/reference). It should address each aim / objective in order. It is best to begin this section by stating the most important results/findings first. The discussion addresses the following questions:</p> <ul style="list-style-type: none"> • Do your results support the objective of your research/experiment? • Do the results support / refute your hypothesis? • Are your results consistent with those reported by other researchers? • If your results are not as expected, what are the possible explanations? • Do the results raise new questions? • Are there any limitations of the study, which may impact your conclusion?
<p>Recommendations</p> <p>This section identifies the possible solutions reached throughout the report. Solutions or recommendations are based on real needs; they are suitable and realistic for the context of the research problem (i.e. relevant to the culture of the organization or client, affordable, timely, and practical).</p> <p>The recommendations offered should be specific, and well-reasoned. They should be based on the evidence discussed and clearly outline the potential outcomes for adoption of these recommendations. This section can also present alternative recommendations if needed.</p>	<p>Conclusion</p> <p>This section briefly restates the main results/findings, and summarises the significant and major implications of the findings. The conclusion also identifies any limitations and can offer suggestions for future research.</p>
<p>Reference List</p>	<p>Reference List</p>
<p>Appendices (if required)</p>	<p>Appendices (if required)</p>