Report Writing: Tenses in Science

Scientific reports, research papers, and lab reports follow a clear and predictable structure. These are often referred to as empirical reports or **AIMRaD** reports, which include the following sections: **A**bstract, **I**ntroduction, **M**ethod, **R**esults, and **D**iscussion. Because each section serves a different purpose, it is important to use the appropriate verb tense throughout the report.

Abstract

The Abstract is usually written last, after the report has been completed. Its purpose is to provide a concise summary of the entire report, allowing busy readers to quickly understand the study's aim, methods, key findings, and conclusions without reading the full document.
Because the research or experiment has already been completed when the Abstract is written, the **simple past tense** is typically used.

Examples:

- A survey **was conducted** to investigate ...
- Samples **were collected** from ...
- The results **indicated** that ...
- The evidence suggested that ...

Introduction

The Introduction is one of the most important sections of a report. Its purpose is to provide the background needed to understand the study and explain why the research is important. It typically begins with background information, followed by a brief review of relevant literature. The writer then identifies a gap in current knowledge and explains how the study will address it. Finally, the Introduction states the aim, research question, or hypothesis, and may conclude with a brief statement about the study's significance.

A well-structured Introduction generally includes five stages, and we use a different tense for each, as follows:

1. **Establishing a context - simple present tense**
   - Nutrient reabsorption **is** a common phenomenon in forest trees.
   - The factors **that control** the concentration of iron in seawater are poorly known.
2. **Reviewing research - simple past tense, or present perfect tense for multiple authors**
   - Allen (1994) **found that** there was a rise in the ... Jones (2010) **reported** that ...
   - Several researchers, notably Jones (2000) and Healy (2001) **have found** that ...
3. **Identifying research gap - present perfect tense**
   - Few studies **have reported** on the effects of computer-assisted instruction.
   - There **has been** a paucity of data on how autonomous vehicles are calibrated.
4. **Purpose of current study - simple present tense**
   - This paper **aims** to determine ...
   - The objective of this report **is** to ....
5. **Current study justification - simple present, simple future or present perfect tense**
   - This topic **has been identified** as crucial to teachers, providing them with ...
   - This **will be** of benefit for researchers in terms of ...

Methodology/Methods

The Methodology (or Methods) section explains how the study was conducted. Because the research has already been completed, this section is typically written in the **past tense** and often uses the **passive voice**. Present the information in a clear, logical order, covering relevant aspects of the research process.

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Overview
- A bilingual and monolingual group **were** compared ...
- A total phosphorus and total nitrogen compound mixture **was** measured ...

Sample
- The participants **were** selected from a pool of ...
- A standard protocol **was** followed in selecting ...

Restrictions
- Only bilingual students **were** of interest for the purposes of this study ...

Sampling technique
- The bilingual subjects **were** selected from the cohort of Mexican participants.
- An inter-rater reliability coefficient **was** used to ...

Materials
- The test instrument employed for this study **was** a ...
- The model used consisted of a series of glass plates which **were** used to ...

Procedure
NB: In some reports, this comprises a separate section to *Methods*
- Participants **were** first given a glass of water to drink ... They **were** then asked to ...
- The experimental group **was** told that the auditory test would last two minutes.

Another common Methods structure
- Locate the findings
- Identify the most important data
- Comment briefly on the data (detailed comment is given in the Results section)

Results
The Results section presents the findings of the study. Because the research or experiment has already been completed, results are usually reported in the **simple past tense**.

Examples:
- Overall, 70% of the insects collected **were** non-phytophagous.
- The results **indicated** an increase in ... and a decrease in ...

When referring to tables, figures, or graphs, use the **simple present tense** because these visual elements continue to exist within the report.

Examples:
- Figure 1 shows the relationship between age and income.
- Table 2 presents the survey results.

Discussion
The Discussion section is often the longest part of a scientific report. It typically uses the **simple past tense** to describe the findings of the study and the **simple present tense** to explain, interpret, or discuss their significance. Writers often use cautious language, known as hedging, when interpreting results. This involves using words and phrases such as “appears”, “suggests”, “may indicate”, and seems to avoid making overly strong claims.

Examples:
- Leaf carbon and phenolic content **did not appear** to differ across sites, **suggesting** that ...
- Microbial activity **appears to** have caused immobilisation of soil phosphorus; however, it **is** ...
- These findings **suggest** that ...
- The results **indicate** that ...

Related Helpsheets
- Report Writing: Scientific (Brief)
- Writing in an Academic Style

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