

# Using Tenses in Scientific Reports

Scientific reports, research papers, and lab reports follow a clearly defined and predictable structure. They are also known as ‘empirical’ reports, or *AIMRaD* reports: Abstract, Introduction, Method, Results and Discussion. It is important to use tenses that are appropriate to each section. For a general discussion of the use of tenses in English, see the helpsheet **Tenses**.

## Abstract

The abstract is usually written last after a report is completed. It has the job of summarising each section of the report so that a busy person only needs to read the Abstract to get an idea of the report in its entirety. As the experiment or study conducted is complete when the Abstract is written, the **simple past tense** is used:

- *In this report a survey **was conducted** ...*
- *Samples **were taken** from ...*
- *Results **indicated that** ...*
- *The evidence **showed that**...*

## Introduction

The Introduction of a report is critical. The main job it does is to include background information to contextualise the purpose or aim of the study. (This will include information taken to be factually accurate at the time of writing.) This leads to a short review of previous literature (a more detailed literature review can follow the Introduction). Following this, a statement appears in the Introduction outlining what the writer intends to do to advance knowledge in the area. Following this, is the purpose or aim of the study—which could be in the form of a hypothesis or research question—and, finally, a statement about the value of the study (the latter is optional). Thus, there are five distinct stages in a well-crafted introduction and a different tense used for each:

1. Establishing a context (**simple present tense**)
  - Nutrient reabsorption **is** a common phenomenon in forest trees.*
  - The factors that control the concentration of aluminium in seawater **are** poorly known.*
2. Reviewing previous research, i.e., information already published or studied (**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. Advancing to present research, i.e., outlining the need for more research owing to a gap in our knowledge in the area (**present perfect tense**)
  - Little research **has been done** on topic development in ESL students’ composition.*
  - Few studies **have reported on** the effects of computer-assisted instruction.*
  - There **has been** a paucity of data looking at how autonomous vehicles are calibrated.*
4. The purpose or objective of the current study (**simple present tense**)
  - This paper **aims to determine**...*
  - The objective of this report **is to** ....*
5. The value or justification of the present study (optional) (**simple present, simple future** or **present perfect tense**)
  - This topic **has been identified** as being crucial to teachers in providing them with ...*
  - This **will be** of benefit for researchers in terms of ...*

## Methodology/Methods

This section outlines what was done in the study. As this is now over it is written in the **past tense**. The passive voice is used. It is good to write in a structured way covering some of the following sections:

### Overview

- A bilingual and monolingual group **were compared**. ...
- Total phosphorus and total nitrogen **were 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)

- The participants **were** first given a glass of water to drink ... They **were then asked** to ...
- The experimental group **was instructed** that the auditory test would be five-minutes in duration.

Another common Methods structure is to: a) Locate the findings; 2) Identify the most important data; 3) Comment briefly on the data (detailed comment is given in the Results section).

## Results

Like the Methods section, this section uses the **past tense** as the experiment or study is over.

- Overall, 70% of insects **collected were** non-phytophagous.
- Results **indicated** that there was a rise in the ... and a fall in the ...

An exception to this is when diagrams and tables are described. The **present tense** is used for this.

- Figure 1 above **shows** that there is a ...
- Histogram 3.2 below **indicates** that ...

## Discussion

The largest section of a scientific report is written using both the **simple past tense** to summarise findings, and the **simple present tense** to interpret the results and make them relevant or significant to readers now. Modal verbs to express tentativeness are used ('appears that ...', 'suggests that...' 'seems that'...)

- Leaf carbon and phenolic content **did not appear to** differ across sites **indicating** that the response of secondary plant chemicals **is** complex.
- It **seems that** microbial activity **caused** immobilisation of labial soil phosphorous, however it **is** unlikely that...

### Sources:

Academic Skills Unit. (2018) *Using Tenses in Scientific Writing*. Retrieved from [http://services.unimelb.edu.au/\\_data/assets/pdf\\_file/0009/471294/Using\\_tenses\\_in\\_scientific\\_writing\\_Update\\_051112.pdf](http://services.unimelb.edu.au/_data/assets/pdf_file/0009/471294/Using_tenses_in_scientific_writing_Update_051112.pdf)  
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