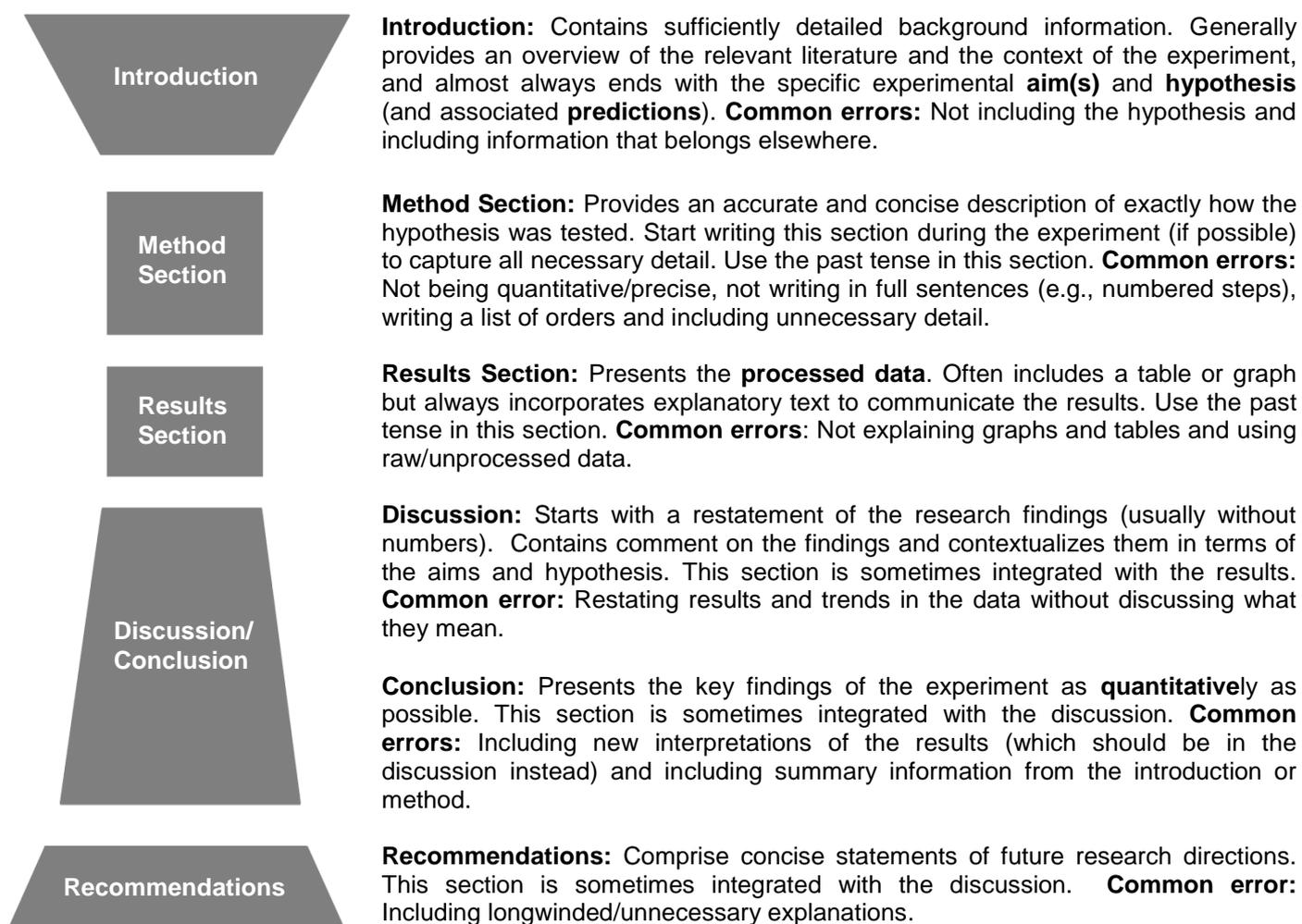


The Experimental Report

This sheet contains generic advice about writing an experimental report. It does NOT replace instructions specific to your task. The key purpose of an experimental report is to introduce a hypothesis, describe a method to test this hypothesis, report the results, and draw conclusions from the findings. Generally, an experimental report is shaped like an hourglass: the introduction starts out relatively broadly; the relevant literature is then reviewed; the focus then narrows down to the specific aim(s) of the experiment and the hypothesis being tested, the method/s used, and the statistical findings; and then the report broadens out again in the discussion to incorporate implications and future directions. This structure is reflected below.

Title: provides a concise statement of the experiment. Often includes the **independent** and **dependent variable**.

Abstract: gives an overview of the experiment and briefly summarises each section of the report. **Common errors:** Not communicating major findings, not including all sections, and/or including too much detail in some sections.



List of References: comprises a full list of resources cited in the report presented in the referencing style appropriate to the particular discipline. **Common errors:** Making it difficult for the reader to find the source material.

Appendices: contain other information, **raw data**, calculations and scales. These are placed at the end of the report because they are not directly required in the text but may be of use/interest to some readers. Each appendix requires a unique label (e.g., Appendix A).

Glossary

Aim(s):	A precise explanation of what the experiment is actually testing (e.g., <i>The aim of this experiment is to ...</i>).
Dependent Variable (DV):	The factor that is measured to see what effect (if any) any changes in the independent variable have had. There can be more than one DV.
Hypothesis:	A statement of the relationship between an independent and a dependent variable (e.g., As <i>x</i> increases, <i>y</i> decreases). A hypothesis is never proved: it can only be supported or rejected by the research findings.
Independent Variable (IV):	The manipulated (or changed) causal factor. This manipulation is predicted to affect the dependent variable in particular ways.
Predictions:	Testable statements derived from the hypothesis that usually relate directly to the experimental data. Depending on the experimental results, these are either correct or incorrect. If a prediction is correct then the hypothesis is supported. If a prediction is incorrect, the hypothesis can be rejected (i.e., it is not supported).
Processed Data:	Data that has been statistically analysed.
Quantitative:	A descriptor of research or variables that can be measured using numbers.
Raw Data:	Data in its original state before it is statistically analysed.

Common Report Writing Terms and Concepts

Accuracy:	A measure of how close your actual results are to their “true” value (if there were absolutely no errors in your experiment).
Control Group:	The group that receives no treatment in the experiment.
Controlled Variable (or Covariate):	Extraneous variables (factors) in the experiment that need to be held constant across all treatments (or conditions) in order to ensure that the experiment is valid. A valid experiment is one in which any measurable change in the DV can only be due to changes in (or manipulation of) the IV.
Reliability:	An experiment is reliable if it can be repeated and still produce the same results.
Treatment Condition/ Experimental Condition:	A treatment or a level of an independent variable (i.e., the level of the independent variable applied to a particular experimental group).
Treatment Group/ Experimental Group:	A group receiving some treatment in an experiment.
Validity:	The extent to which the experiment is exclusively measuring the effect of the change in the IV on the DV. If some effect other than the manipulation or change in the IV is affecting the measured DV, then the experiment has a lower validity.