

CHECKLIST FOR THE FINAL DRAFT OF YOUR REPORT

Taken from: Pechenik, J. *A Short Guide to Writing About Biology*, New York, HarperCollins College Publishers, 1993, pp. 230-232.

Title

___ Title gives a specific indication of what the study is about

Abstract

___ Background stated in 1 or 2 sentences
___ Clear statement of specific question addressed, and of specific hypotheses tested
___ Methods summarized in no more than 3 or 4 sentences
___ Major findings reported in no more than 2 or 3 sentences
___ Concluding sentence relates to statement of specific question addressed
___ Abstract is a single paragraph; if not, can it be rewritten as one paragraph?

Introduction

___ Begins with broader context and general/overarching question
___ Clear statement of specific question or issue addressed
___ Logical argument provided as to why the question or issue was addressed – why is this a burning question? How does it advance general understanding?
___ Specific hypotheses are indicated, if appropriate, and a rationale for the hypothesis is provided (i.e. explain your hypotheses!)

___ Every sentence leads to the statement of what was done in this study (general → specific)
___ All statements of fact or opinion are supported with a reference or example

Materials and Methods

___ Methods are presented in the past tense
___ Design of study or experiment is clear and complete
___ Rationale for each step is self-evident or clearly indicated
___ Each factor mentioned is likely to have influenced the outcome of this study, and all factors likely to have influenced the outcome are mentioned
___ Precision of all measurements is indicated
___ Includes brief description of how data were analyzed (calculations made, statistical tests used, why some data were excluded)

Results

___ Results are presented in the past tense
___ Results are presented in active terms whenever possible, for example, in terms of what organisms or enzymes did
___ All general statements are supported with reference to data (i.e. Fig. 1; and by results of statistical analysis when possible)
___ Major results are presented in words, but their implications are not discussed
___ The same data are not presented in both tabular and graphical form within the same report – one or the other

- ___ Each figure or table has an informative caption or legend, correctly placed
- ___ Symbols are used consistently in all figures, and are chosen to facilitate interpretation when possible
- ___ Tables and figures are numbered in the order in which they are first referred to in the paper
- ___ Each figure or table is self-sufficient; readers can tell what question is being asked, the major aspects of how the question was addressed, and what the most important results are without reference to the rest of the paper
- ___ Numbers of individuals and numbers of replicates are clearly indicated in the graph, table, caption, or legend
- ___ The meaning of error bars on figures is clearly indicated in the caption; for example, 1 standard error about the mean (s.e.m.)

Discussion

- ___ Data are clearly related to the questions and hypotheses raised in the introduction – were hypotheses supported?
- ___ Facts are carefully distinguished from speculation
- ___ Unusual or unexpected findings are discussed logically, based on biology rather than apology (NOT “we screwed up”)
- ___ All statements of fact or opinion are supported with references to the literature, data, or an example
- ___ Discussion suggests further studies that should be conducted, additional questions that should be posed, or ways that the present study should be modified in the future

Literature Cited

- ___ Citations are provided for every reference cited in the report and are in the correct format
- ___ Section includes no references that are not cited in the report
- ___ Each citation includes names of all authors, title of paper, year of publication, volume number, and page numbers

Acknowledgements

- ___ People are mentioned by first and last names, and their specific contributions are noted

General

- ___ Text of report is double-spaced
- ___ First page shows name of author, name of lab section (AM or PM), and date submitted
- ___ All information is presented in the appropriate section of the report
- ___ All pages and lines are numbered correctly