From handbook:

**SECTIONS OF A RESEARCH REPORT**

Each empirical practical report should adhere to the following structure:

**1) Title**

The purpose of the title is to summarise the main idea of the paper simply and concisely. It should identify the variables or the theoretical issues involved in the study. A common format is one that states what the independent and dependent variables are (e.g., “The Effect of Alcohol on Reaction Time”). Avoid redundant phrases like “A Study to Investigate...”, and “An Experiment to Test...”.

**2) Abstract**

An abstract is a brief but comprehensive summary of a report. It should allow the reader to survey the contents of a report in a few moments. An abstract should the problem under investigation (in one sentence if possible); the participants, where appropriate specifying pertinent characteristics such as number, sex, age and population from which they were drawn; the experimental method, including, as appropriate, variables, apparatus, data-gathering procedures, test used, stimuli, etc.; the findings of the study; the conclusions, implications, applications of the results.

An abstract should be self-contained, so that a reader does not have to refer to the main body of a report in order to know what it is about. Do not use unexplained abbreviations or jargon. It is important that an abstract should be concise and specific. Use clear, simple, informative sentences.

**3) Introduction**

The Introduction should produce a funnelling effect by moving from a general description of the area under study to specific discussion of the study’s approach and the rationale for the hypotheses.

**(i) Introduce the reader to the problem under investigation**

The Introduction should begin with a paragraph or two setting out what your study is going to investigate, what the particular problem under investigation is, what theoretical or methodological issues are at stake, and what the implications of these may be.

**(ii) Develop the background to your study**

Literature relevant to your study should be discussed, but an exhaustive review is not required. Assume the reader has some knowledge of the particular area and does not require a complete summary of all previous work in the area. Only work that is relevant to your study should be discussed: an Introduction is **not** an essay on a particular topic. Where earlier work is summarised, do not go into unnecessary detail: rather, emphasise pertinent findings, relevant methodological issues, and major conclusions. It is important to demonstrate the logical continuity between previous work and your own study.

**(iii) State and justify the rationale and hypotheses for your study**

After you have introduced the problem and developed the background material, you are in a position to tell the reader what theories you are going to test, how you are going to test them, and what your hypotheses are. This should be done in the closing paragraphs of the introduction. Start off by stating what you will be testing, then briefly describe the methodology so that the reader understands how you are going to test the theories. You should include a brief description of the procedure, the stimuli, relevant parts of the design, and the dependent and independent variables. Finally, you should discuss what predictions the theories make (i.e., the hypotheses) for your experiment and why they make those predictions.

After having read this section of the report, the reader should understand (1) which theories you are testing (2) what experimental procedure will be employed (3) what predictions the theories make and why they make those predictions.

**4) Method**

In the Method section, you should describe in detail how your study was conducted. This description should enable the reader to evaluate the appropriateness of your methods, and therefore the validity of your results and conclusions. The Method section should also present all the information necessary for the reader to replicate your study exactly.

Normally, a Method section will contain the following subsections (although there may be experiments where one or other of the sections is not required, as well as experiments where other special subsections are appropriate). Note that you should never repeat information in multiple sections of the method. If it is in one section then it should not be in another section.

**(i) Participants**

This subsection should specify the number, and source population of the people that took part in your experiment as well as how they were selected and recruited. You should also state how many participants were assigned to each experimental condition and how they were assigned to that condition. As well as these basics, any other characteristics of your sample that are relevant to your study should be reported.

**(ii) Apparatus/Materials**

This section tells the reader what apparatus and/or materials you used in your experiment and what you used them for. When deciding whether to include a description of a piece of equipment, you should ask yourself whether the particulars of the equipment would affect the interpretation of the results. If the answer is yes, you should describe the equipment, otherwise there is no need. For example, the type of table (e.g., plastic, wood, or metal) on which a questionnaire was completed is unlikely to affect the interpretation of an experiment about alcohol and personality expression. Hence the table characteristics should not be included. In contrast, the type of alcohol used might do, so this should be described.

Where appropriate, the layout of the equipment should also be reported. In this section you should also describe any materials, such as personality tests, items in a memory experiment etc. that you used, as well as how and why these particular materials were selected. (Copies of tests or full lists of items from a memory experiment may be included in an Appendix).

**(iii) Design**

Here you should specify: what your independent variables were; how your IVs were operationalised and how many levels there were for each IV; whether IVs were manipulated within or between subjects; what your dependent variables were and how they were measured. You should also report any controls implemented, as well as procedures for presenting items or conditions (e.g., randomising or counterbalancing of presentation order).

**(iv) Procedure**

This subsection should provide a step-by-step, chronological account of what was said and done to participants during the experiment. It should tell the reader: how stimuli or treatments were presented (e.g., for how long were words in a memory experiment presented), how responses or measurements were recorded (including the time given to participants to complete their responses), what instructions were given to participants (usually, it is sufficient to paraphrase instructions in this section, a verbatim copy may be included in an Appendix).

**5) Results**

This section should summarise your data and the results of any statistical treatments that you carried out. All relevant results should be reported (including those that went against your hypotheses). Individual scores or raw data should not be included, nor should output from statistical programs, such as ANOVA tables.

Generally, you will need to present both descriptive and inferential statistics in this section. Descriptive statistics (such as means, standard deviations etc.) presented in tables and figures are intended to supplement, not duplicate, the text. You should refer to each of your tables or figures in the text (e.g., “see Table 1”) and summarise/highlight their contents (e.g., “as shown in Figure 1, the number of correct responses was greater in the high anxiety condition”). Tables and figures should be intelligible without reference to the text. They must be carefully labelled, numbered sequentially and include a caption describing their contents. Figure captions should always be placed below the figure. Table captions might be placed either below the table (for simple consistency with figure captions) or above the table (in conformance with APA style). The format for numbering and captioning tables and figures is as follows:

Table 1. Mean performance scores of students on different degree programmes.

Figure 1. Proportion of left hand reaches by squirrel monkeys from horizontal and vertical postures.

Figures should use legends to identify symbols where necessary and tables should include notes to explain any abbreviations used in the row and column headings and any symbols used to indicate probability values (e.g., \**p* <.05, \*\**p* <.01, \*\*\**p* <.001).

Decide for yourself what is the clearest way of presenting the particular set of data, but usually data should be presented only once. As well as presenting descriptive statistics, results of inferential statistics should also be reported. This is how you actually test your hypotheses; therefore the tests carried out should make sense in light of those hypotheses.

When reporting inferential statistics (e.g., t-tests, F-tests, chi-square), include the name of the test (usually a single letter is all that is needed), the degrees of freedom (in brackets after the name of the test), the obtained value of the test, and the probability level. Also, where a significant effect is found, be sure to state the **direction** of that effect. For example:

"Reaction times were significantly slower in the group that had consumed alcohol than in the control group, *t*(18) = 4.78, *p* < .05."

You need only report whether the test statistic is greater or less than a particular alpha level (e.g., .05, .01). Alternatively, you can report an exact p-value. For example:

“There was no significant difference in recall scores between the group that had chewed gum during study and the control group, *t*(31) = 1.60, *p* = .12.”

Be careful not to present the reader with an impenetrable list of numbers and statistical results. Although lengthy discussion of the implications of your results is inappropriate in this section (save that for the Discussion section), you should guide the reader through the numbers with qualitative descriptions of the effects and a brief statement about which theories your data support or contradict.

**6) Discussion**

Open this section with a brief (a couple of sentences) summary of the main findings of your study and how they relate to your hypotheses. Then go on to interpret and evaluate these findings, particularly with respect to your hypotheses and the original problem that you set out to investigate. Discuss how your findings relate to previous work: Do they support the findings of other work? If they contradict other findings, why do they do so? How does your study advance theory? In the Discussion, it may also be appropriate to raise methodological criticisms of your study. Are there ways the design could be improved in order to better examine the question in which you are interested? Are there any applications of your findings? Also consider what future directions research on the topic might take.

**7) References**

Throughout your report, you will be referring to the work of others. It is important that this work is cited and referenced accurately and correctly. Your references should conform to APA style as described in the Referencing guidelines in your student Handbook. These guidelines cover the form of citations within the report as well as the reference list at the end of the report.

**8) Appendices**

Appendices can be used to provide the reader with information that may be too long or detailed for inclusion in the body of the report, such as verbatim accounts of instructions to subjects, copies of questionnaires, lists of memory items, etc. All appendices should be numbered in the sequence in which they are referred to in the text (i.e. the material you refer to first should be placed in Appendix 1). However, the reader should not have to refer to Appendices in order to understand the report. Include a List of Appendices before the Appendices themselves.