

# Writing research reports

Swinburne University Lectures Series,  
2009

## References

American Psychological Association. (2001). *Publication manual*. (5th ed.). Washington, DC: Author.

Burton, L.J. (2007). *An interactive approach to writing essays and research reports in Psychology* (2<sup>nd</sup> ed.). Milton, Qld: Wiley – Chapter 5

Findlay, B. (2009). *How to write psychology research reports and essays*. (5<sup>th</sup> ed.) Sydney: Pearson.

## Acknowledgements:

Swinburne University Mini-lecture 'Writing lab reports', 2008

## Learning Objectives

- To communicate the findings of a research project in a standardised form
  - To outline the steps required in presenting research in a standardised format
  - To distinguish among the different sections of a research report
  - To understand the importance of gathering appropriate references
  - To be able to differentiate between good and poor research reports

The purpose of this lesson is to introduce you to a research report.

A research report is also called a lab report and it is a standardised report which allows researchers to communicate their research, what they have done, why they done it and what they have found.

In particular, a research report is written in a language that other researchers, including students, can understand.

You will be writing a research report as part of this introductory unit in psychology. The two written assignments will form a report. While you won't be conducting your own research you will be writing the report as though it is your own work. We will give you some data and enough information on why and how the research was conducted and take you through step-by-step the writing of a research report in psychology.

We are using Bruce Findlay's text as a guide and will refer to it constantly throughout the lesson. It takes a step by step approach unpacking each component of a report in a very easy-to-understand way. Bruce has also provided examples of good and poor reports and a check list to help students with this process.

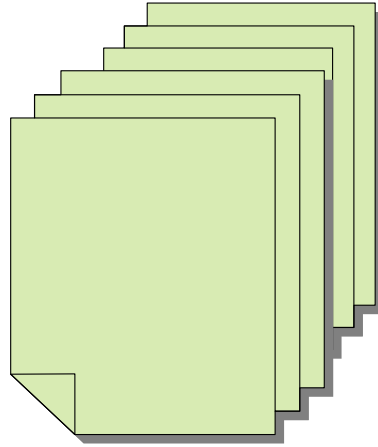
## What is a research report?

- A presentation, in a standardised format, of psychological research which includes:
  - A summary of the research project.
  - The reasons for conducting the research.
  - What the researchers expected to find -> their hypotheses.
  - What the researchers did.
  - What the results were and how the researchers explained them in light of their original expectations.
  - What are the implications of the findings and what the researchers propose to do next.

Standardised reports allow researchers to communicate their work, and specifically, their findings in a language that other researchers, including students, can understand. Even though not everyone wants to become an active researcher, we all need to be able to read, understand and critically evaluate the work of other psychologists and researchers. You only have to check out the daily news to find examples of poor research. One of the best ways to become efficient in this is to learn how to write research reports.

## Elements of a research report

- Title page
- Abstract
- Introduction
- Method section
- Results section
- Discussion
- References
- Appendices (if required)



Usually, there are seven parts to a research report. The title page, abstract, introduction, method section, results section, discussion and reference list. An appendix can be added if required.

Presentation: All research reports submitted to Swinburne University should be formatted as follows:

12-point font – Times New Roman.

Double spaced.

Left margin justification only.

Indent first line of each paragraph with the exception of the Abstract (this is not indented).

Leave at least 3cm on all 4 margins.

Are numbered on each page at the upper right-hand corner.

The convention is to begin number of pages with the Introduction but the first number to be seen is on the second page of the Introduction.

Do not use first person, e.g., “I interviewed ten subjects” instead write “In this study ten subjects were interviewed by the researchers.” Avoid using she, he, and we.

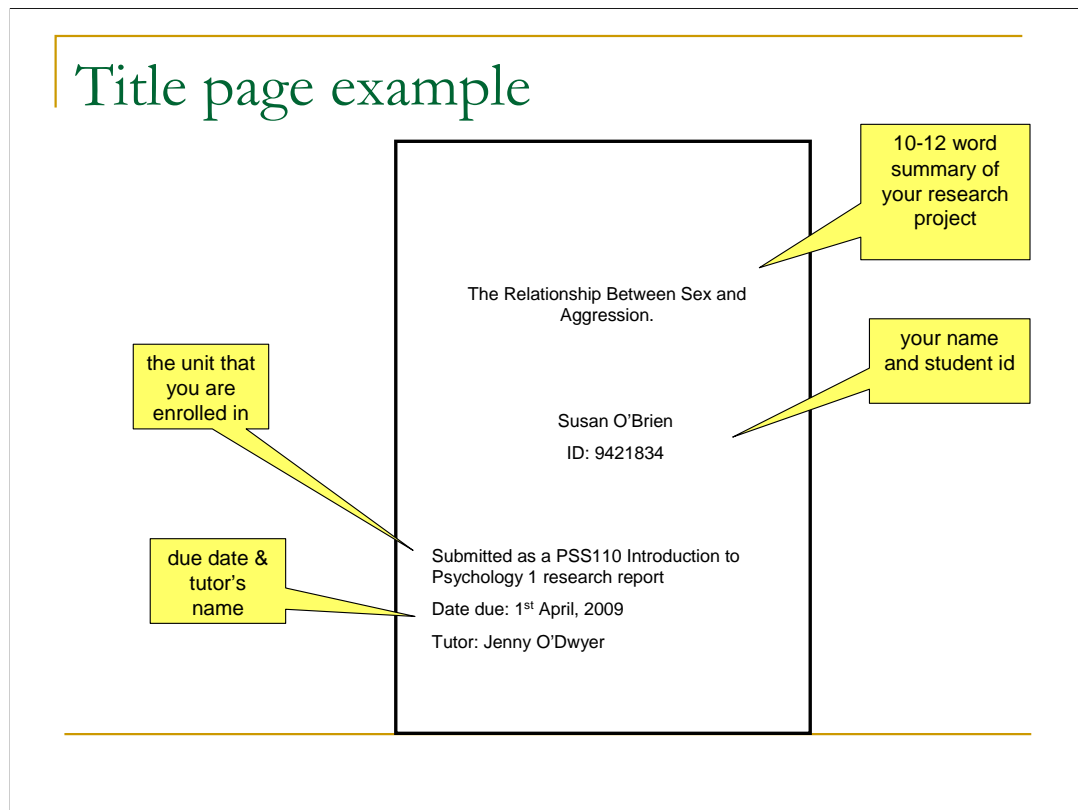
Use Australian/English spelling.

## Title page

- Title - a 10 -12 word summary of the main theme of your project
- Name and student number
- The institution where you are studying
- The due date of the assignment
- Your tutor

There should be enough information on this page to identify the project, the author and the institution that the report is being submitted to.

It is a separate page with a brief title of the project and the name of author/s.



Title should be short but informative e.g., The Relationship Between Sex and Aggression.

Title should be centred horizontally on the page (about one third down the page)

Your name should also be centred horizontally two lines below the title.

Tutor's name, unit code, due date and the day and time of your tutorial class should be reported on the bottom left of the page.

Also see page 52 of Findlay (2009) for an example of a title page.

## Abstract

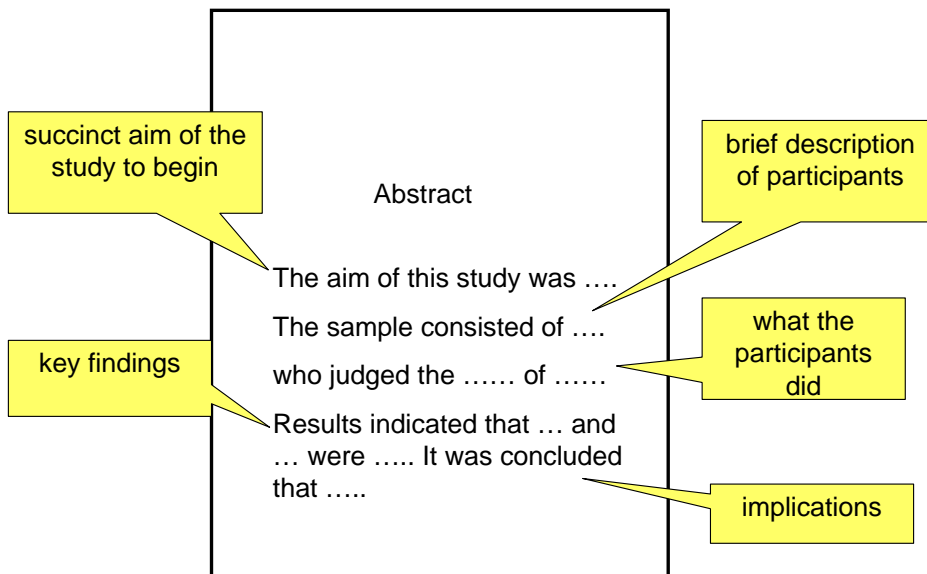
- One paragraph (up to 120 words) summary of the research project
- This is a brief description of the four main sections of the research:
  - Aim/s of the study - defining the research problem
  - Research method (participants & procedure)
  - Key findings
  - Implications

This is a separate page with the word 'Abstract' centred on the page.

The abstract consists of only one paragraph (not indented), that is justified on the left margin only.

The abstract is a brief description of the main sections of the study including its findings.

## Abstract example



Include in the Abstract:

The problem under investigation (the aim of the research);

The principal method/s used – questionnaire, survey etc;

The participants – specify the number, their age, sex or any other pertinent characteristics of the sample;

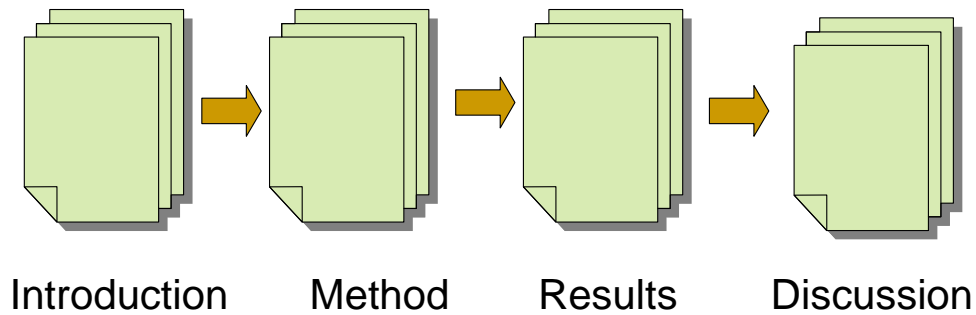
Major findings;

Conclusions and implications.

Also see page 53 of Findlay (2009) for more examples of Abstracts.



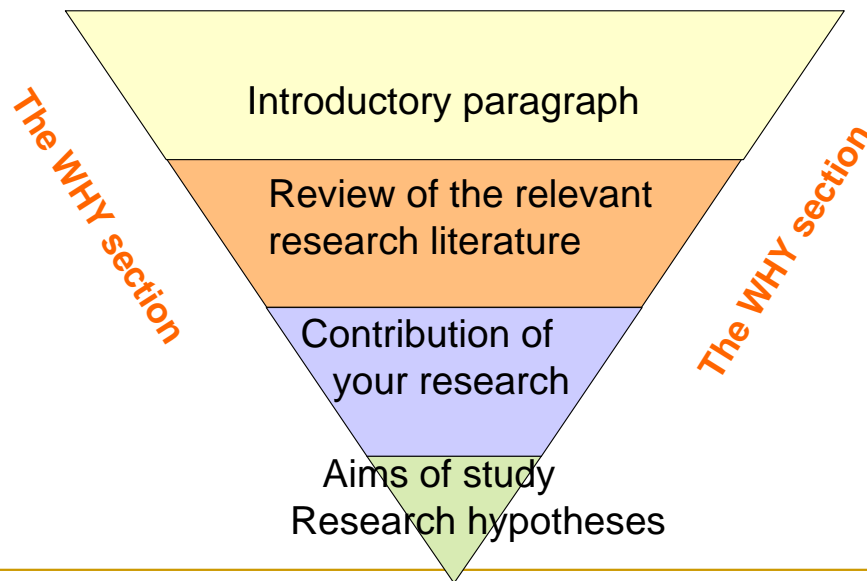
## Main elements of a research report



Following on from the title page and abstract are the four main parts of the research report which should flow logically from one section to the next.

The format of the report outlined here is one that is normally used in psychological research involving the collection of quantitative data and using experimental or survey methodology (Burton, 2007).

## What goes in the introduction section?



The introduction is begun on a new page but without a heading.

The introduction is structured so that the information it includes goes from the very general to the very specific – its shape looks like that of an upside-down pyramid.

- i) An introduction to the research area – general information about the topic, theoretical framework, definitions of key terms.
- ii) A critical review of the relevant research literature e.g., past research that is specific to the aims and hypotheses of current research, identifying the inconsistencies and limitations in this previous research.
- iii) Identification of how your study will contribute to what is known about the issue and how it addresses some of the previous inconsistencies and limitations in the previous research.
- iv) Aim/s of the current study.
- v) Hypotheses: predicted relations between variables, e.g., people experiencing higher levels of stress will report poorer health than those experiencing lower levels of stress. These specific predictions are made in the past tense, you are writing the report about a study that has already taken place.

Refer to Bruce Findlay's text for more detailed explanation of the structure of an Introduction – beginning at page 54.

## Critically reviewing prior research

- Sternberg's 8 standards for evaluating research
  - Does the paper:
    - Replicate previous findings?
    - Challenge previous assumptions?
    - Address important social issues?
    - Distinguish between theories or resolve theoretical issues?
    - Correct flaws in previous research?
    - Address a previously unidentified or unexplored issue?
    - Present a promising new theory?

One of the hardest skills to learn is to critically review prior research. A critical review identifies inconsistencies and limitations of past research projects. The best place to start is with Bruce Findlay's (2009) guide to critical evaluation of psychology journal articles (page 17). When writing up your introduction you don't have to address all of these points, however, you will need to decide which points are relevant to your research project and mention them in your Introduction section.

## What goes in the method section?

- A description of the participants
- The materials or apparatus used in the research
- The procedure used to conduct the research

### The WHAT section

The Method section follows straight on from the Introduction section (it does not start on a new page). It does have a heading of Method (which is centred) and subheadings of Participants, Materials, Procedures (which are left justified).

A research report is written from the viewpoint that this is a project that you have conducted. Therefore, you should provide enough detail in this section so that another researcher could replicate your study based on the information given.

**Participants:** Who took part in this research; how many subjects were tested; how were they recruited; demographic information (e.g., age, gender, SES, location); how was consent obtained?

**Materials:** If any equipment was needed (questionnaires, computer, software etc); description of surveys, questionnaires, tasks, or any other test that was used, how were the questionnaires scored?

**Procedure:** A chronological account of events during the experiment or the collection of data; instructions given to the participants, other relevant information such as time of study, spacing of rest periods, debriefing procedures.

Refer to page 61 in Findlay's text for further details on the Method section.

## What goes in the results section?

- How the research data was analysed.
- The main findings that resulted from the statistical analyses as they related to the hypotheses
- Include Tables or Figures if they are appropriate

Explores the WHAT section

The Results section follows straight on from the Method section and should provide

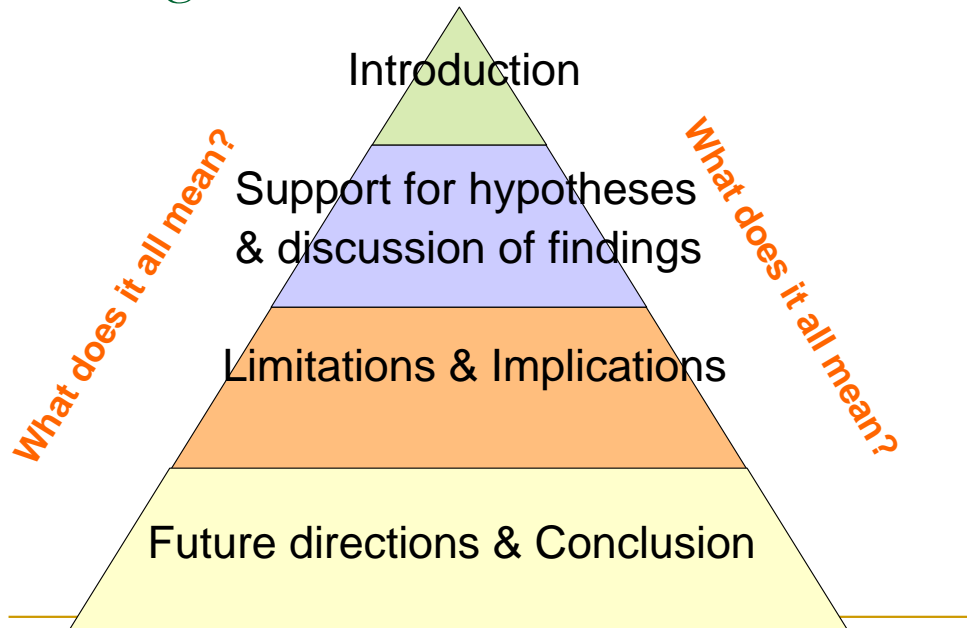
- a) a summary of the data collected and
- b) the main findings as they relate to the hypotheses.

Included in the results section is how the data was analysed – i.e., what statistical analysis was conducted on the data.

What the main findings were – the data is presented but not discussed. Example from Findlay (2009) “A one-tailed paired-samples  $t$ -test found that respondents reported the quality of their own relationship to be significantly higher ( $M = 4.40$ ,  $SD = .81$ ) than that of the average person ( $M = 3.67$ ,  $SD = .68$ ),  $t(120) = 8.58$ ,  $p < .001$ .” (p. 69)

The general rule for adding tables or other figures into the results section is only if they help explain findings or if you have large amounts of data that could be displayed in a table and summarised (but with no repetition of the actual data) in the text.

## What goes in the discussion section?



The information in this section is structured so that it goes from the very specific to the general – now the figure looks like a normal pyramid.

Introduce this section by giving a brief reference to the aim/s of the study.

State whether the hypothesis or hypotheses were supported or not then discuss these findings by referring back to the research in the introduction.

Limitations – connect these to findings, what might have influenced the results e.g., how might these suggested limitations have impacted on the results.

Implications – how do the findings apply to the real world.

Future directions – What is the next stage of the research – this must lead on from findings of current research, limitations and implications.

Conclusion – this is not just a repeat of the findings but a summary of the overall study.

## References

- In text referencing or citations follows APA format of author-date (Findlay, 2009).
- List the references cited in the study after discussion section (beginning on a new page)
- This is not a bibliography.
- Must be formatted according to APA standards.
- Use peer reviewed references – journal articles or texts even Google Scholar **but do not use** Wikipedia.

All citations in the body of the report must follow the APA format.

For the final reference list start a new page that is headed by the word 'References' and list each of the references used in the report in alphabetical order and in APA format.

Refer to Findlay (2009) beginning on page 80 for correct referencing format.

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## Appendices

- Not often used in undergraduate research reports
  - For including supplementary material e.g., tables, questionnaires
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## What makes a good research report?

- Check the examples in Findlay (2009) for a good report versus a poor report.
- Use the checklist provided by Findlay (2009) **before** you hand in your report (see pages 93 & 94).
- Follow the eight points for writing a psychology paper – page 92 section 4.10 Findlay (2009)

1. Plan ahead.
2. Do your own literature search.
3. Be very clear about what you are hypothesising.
4. Write an outline of the study.
5. Start writing early.
6. Get someone else to read your draft.
7. Have your final report proofread.
8. Submit the report on time.