

How to Write an Abstract

An abstract summarises, in one paragraph (usually 200-300 words), the major aspects of an entire research paper. A good approach is to plan your argument in seven sentences, and then use these to structure your abstract:

1. **Introduction. Describe what topic your paper covers.** Provide the reader with a background to the study/present the main idea of the paper. Avoid unnecessary content.
2. **State the problem you tackle.** What's the key research question? Again, in one sentence.
3. **Summarize why nobody else has adequately answered the research question yet.** Emphasise the gap in the literature. So, you could use a phrase such as "previous work has failed to address...".
4. **Explain how you tackled the research question.** What's your big idea? In other words, what is new, different, or important about how you approached the research?
5. **How did you go about doing the research that follows from your big idea?** Provide a brief outline of the methods you used. Did you run experiments? Carry out case studies?
6. **Present the main findings of the paper.** Present the most important findings, results, or outcomes of your research (you can include descriptive statistics)
7. **What is the key impact of your research?** What conclusions did you draw and what are the implications? What is the primary take-home message?

Qualities of a good abstract:

- Presented as a single coherent and concise paragraph (but may contain sub-headings for structured abstracts)
- Uses an introduction-body-conclusion structure in which the parts of the report are discussed in order: purpose, research questions, methods, findings, conclusions, recommendations
- Adds no new information - merely summarises the full report
- Can be understood without reading the paper
- Provides a condensed and concentrated version of the full text
- Does not contain undefined abbreviations or acronyms
- Does not contain citations
- Does not contain lengthy background information
- Does not contain any sort of illustration, figure, or table, or references to them
- Does not contain lengthy details about experiments done or statistical analysis done

Example:

Several attempts have been made to examine the *in vivo* role of CD8⁺ T cells in simian immunodeficiency virus (SIV) infection, but no consensus has been reached [**introduction**]. To determine the role of CD8⁺ T cells in controlling SIV replication in vivo [**aim of study**], we examined the effect of depleting this cell population using an anti-CD8 monoclonal antibody, OKT8F [**methods**]. There was on average a 99.9% reduction of CD8 cells in peripheral blood in six infected *Macaca mulatta* treated with OKT8F. The apparent CD8 depletion started 1 h after antibody administration, and low CD8 levels were maintained until day 8. An increase in plasma viremia of one to three orders of magnitude was observed in five of the six macaques. The injection of a control antibody to an infected macaque did not induce a sustained viral load increase, nor did it significantly reduce the number of CD8⁺ T cells [**results**]. These results demonstrate that CD8 cells play a crucial role in suppressing SIV replication in vivo [**conclusion**]. [160 words]

Adapted from:

Jin, Xia, et al. (1999). Dramatic rise in plasma viremia after CD8⁺ T cell depletion in simian immunodeficiency virus-infected macaques. *The Journal of Experimental Medicine* 189(6):991-998.

Anonymous. 2010. How to write an abstract in six easy steps. [Online] Available at: <http://www.easterbrook.ca/steve/2010/01/how-to-write-a-scientific-abstract-in-six-easy-steps/> (Accessed 5 March 2015)

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