

"Down to Earth" Research Advice

Written by Dr J. Mark Tippett, www.earthresearch.com

Abstracts

Abstract facts

Abstracts are found at the beginning of journal articles, research papers, reports, theses, and dissertations.

An abstract is a complete but concise and informative account of your work, i.e., a condensation that makes sense without reference to the full document. It is not merely a descriptive guide to the paper's content, it is an abbreviated version of the paper (except for very long review-style papers or monographs, in which descriptive abstracts may be used).

The purposes of writing an abstract are: 1. To enable readers to quickly and accurately identify the substance of your work and to decide its relevance to their own interests. 2. To advertise your work (to encourage readers to obtain and read the full article, and to be available on searchable online abstract databases).

An abstract is not a summary. A summary appears at the end of a piece of work, and is a restatement of the important findings and conclusions. Unlike the abstract, the summary does not include condensations of any other portions including the background, purpose, or methods of the study.

With the phenomenon of information overload, many researchers will read only the abstract of your paper.

With the advent of abstract databases, many readers will see your abstract separately from the rest of the paper. Therefore, writing an excellent abstract is vital to encourage readers to obtain the full paper, read it, and cite it.

The essential elements of the structure of an abstract are the background, the problem, the methods, the results, and the

implications.

Abstract writing

The length of the abstract should be restricted to the limit set by the journal or relevant academic regulation, often about 250 words (say about 15 sentences). The abstract consists of 5 linked parts – background, problem, methods, results, and implications. The proportion of the abstract taken by each part varies considerably. You need to get the attention of the reader with the abstract – make them interested in your work.

Background: Briefly set up the background and context to the study, its rationale and significance. Within this background, you need to couch the problem...

Problem: Here you need to identify the particular research problem under investigation, the purpose of the study, and any specific research objectives or hypotheses.

Methods: Outline the approach you took and the methods you used to investigate the problem. Describe the extent of the study, what you did or measured, and how you did it. Specify the location of the study and when it was performed.

Results: give any important data. Be specific, not vague. Quantify if possible; avoid terms such as "most" or "some" if you have the specific numbers. State the major interpretations and findings, how the findings relate to the original research problem, and any limitations/caveats on the results.

Implications: Finish by stating the contribution of the work and its implications. There may be implications for associated problems, or for previous studies, e.g., reinterpretation of a previous model may be necessary in the light of your findings. Do your results

have general or specific application or relevance?

The structure for an abstract described above is appropriate for articles, papers, theses etc. Abstracts for meetings, conferences, and conference proceedings are sometimes more speculative/descriptive in nature and may not follow this structure.

In order to become good at writing abstracts, you need to read and examine others' abstracts, and practice writing your own. You can read abstracts in journals and theses, and by accessing abstract databases (e.g., Science Citation Index). When reading an abstract, peruse it properly to judge if it is informative and well-written. You will be able to identify both good and bad abstracts. When writing your own, give yourself time to produce revised drafts and try to read it as someone reading it for the first time, i.e., as your audience.

Abstract tips

Make your own work sound interesting and exciting, after all, if you can't, who can?

Avoid long-winded, complex sentences.

Avoid excessive use of jargon.

Keep within the specified word limit, otherwise someone else may chop it down for you.

Ensure the abstract contains all your key words (for the searchable databases).

Short abstracts (100-300 words, for articles and papers) should usually be a single unified paragraph; longer abstracts may be paragraphed.