What is an abstract?

An abstract is a stand-alone statement that briefly conveys the essential information of a paper, article, document or book; presents the objective, methods, results, and conclusions of a research project; has a brief, non-repetitive style.

Although an abstract appears as the first section of a paper, it should be written last. You need to have completed all other sections before you can select and summarize the essential information from those sections.

Many abstracts are published without the complete paper itself in abstract journals or in online databases. Thus, an abstract might serve as the only means by which a researcher determines what information a paper contains. Moreover, a researcher might make a decision whether to read the paper or not based on the abstract alone. Because of this need for self-contained compactness, an abstract must convey the essential results of a paper.

Many publications have a required style for abstracts; the “Guidelines for Authors” provided by the publisher will provide specific instructions. This document describes general guidelines.

What goes in an abstract?

In doing any research, a researcher has an objective, uses methods, obtains results, and draws conclusions. In writing the paper to describe the research, an author might discuss background information, review relevant literature, and detail procedures and methodologies. However, an abstract of the paper should:

- describe the objective, methods, results, and conclusions;
- omit background information, a literature review, and detailed description of methods;
- avoid reference to other literatures.

What is the style of an abstract?

The style of an abstract should be concise and clear. Readers do not expect the abstract to have the same sentence structure flow of a paper. Rather, the abstract’s wording should be very direct. For example, the following abstract is a self-contained description of an imaginary physics project. The key elements of an abstract are in boldface, and its style conforms to the suggestions above.

This study’s objective was to determine the strangeness measurements for red, green, and blue quarks. The Britt-Cushman method for quark analysis exploded a quarkstream in a He gas cloud. Results indicate that both red and green quarks had a strangeness that differed by less than $0.453 \times 10^{-17}$ Zabes/m$^2$ for all measurements. Blue quarks remained immeasurable, since their particle traces bent into 7-tuple space. This study’s conclusions indicate that red and green quarks can be used interchangeably in all He stream applications, and further studies must be done to measure the strangeness of blue quarks.
How do you write an abstract?

Writing an abstract involves boiling down the essence of a whole paper into a single paragraph that conveys as much new information as possible. One way of writing an effective abstract is to start with a draft of the complete paper and do the following:

1. Highlight the objective and the conclusions that are in the paper's introduction and the discussion.
2. Bracket information in the methods section of the paper that contains keyword information.
3. Highlight the results from the discussion or results section of the paper.
4. Compile the above highlighted and bracketed information into a single paragraph.
5. Condense the bracketed information into the key words and phrases that identify but do not explain the methods used.
6. Delete extra words and phrases. Delete any background information.
7. Rephrase the first sentence so that it starts off with the new information contained in the paper, rather than with the general topic. One way of doing this is to begin the first sentence with the phrase “this paper” or “this study.”
8. Revise the paragraph so that the abstract conveys the essential information.