THE ABSTRACT: WHY AND HOW TO WRITE ONE

Geoscientists are required to write abstracts of their papers or presentations in order that the public may know the thrust of the work in advance of a decision to read the entire text or to attend the talk. In the words of K.K. Landes (1951) the abstract should be, “...a condensation and concentration of the essential qualities of the paper.” The purpose of the abstract is to provide the reader with an overview of the crucial aspects of the paper or presentation. In addition, Lowman (1988) has offered three suggestions for better abstracts: 1) Start by telling the reader the nature of the paper – what the paper is; 2) Write the abstract in a terse, almost telegraphic style, saving eloquence for the body of the paper; 3) Pack as much specific (factual) information into the abstract as possible—as if the abstract were all that was to survive the fall of civilization! The abstract is NOT an introduction but rather a concentration of the research elements.

Because readers often decide whether to listen to a talk, or to read a paper, on the basis of the abstract, the abstract is read far more often than the paper. In fact, Landes (1951) pointed out that it is read by 10 to 500 times more people than will hear or read the entire article. In today’s era of web page communications, this number may be increased a thousand times! Thus, being able to write a good abstract is an essential skill.

Writing an abstract is a challenge because one is often limited to just a few hundred words. These constraints can be helpful though, since they force the writer to identify the fundamental aspects of the research or presentation. Basically, an abstract provides a very brief overview of the four major parts of a scientific paper – introduction, methods, results, and discussion. (Abstracts of other types of presentations, e.g., review papers, will have a somewhat different organization.) The following guidelines are intended for abstracts with 250-300 word restrictions. This is the typical range of length restriction for most papers to be presented at scientific meetings such as GSA, AAPG or AGU.

Each abstract should be presented under a descriptive, informative and/or “catchy” title. The title usually is not included in the word count and may often serve to describe the nature of the paper in an introductory fashion thus saving words later. It is followed by the author’s name and usually by the institutional postal and email address in the case of abstracts for publication.

The first one or two sentences of an abstract should provide a context for the specific study being presented. A good approach is to briefly describe the larger scientific issues or questions that have motivated you to conduct research of this type. Clearly and explicitly state the purpose of the study. Following the statement of purpose, the general methodological approach should be described, again in one or two sentences. For field studies, the study site should be stated as well. Major results should be summarized in two to four sentences, or as needed. The abstract should conclude with a final sentence or two in which the significance or ramifications of the findings are briefly stated. These final sentences should connect the findings with one or more of the larger ideas stated in the opening two sentences.

Abstracts that are in the form of expanded outlines telling what the paper is about but not telling what new knowledge the paper contributes are, “merely overgrown titles”, according to Landes (1966). He further pointed out that, “They are produced by writers who are either (1) beginners, (2) lazy, or (3) have not written the paper yet! Do not find yourself in category 2 or 3 if you can help it! If you are reading this, you are likely in category 1 so go for it.

A good abstract is not hard to write once you understand the reason for it, and once you know the key elements to include (i.e., once you have written the paper!). In some cases, it should be possible to
lift entire sentences out of your paper to include in your abstract. Conversely, after writing a good abstract in which you have distilled your ideas into a few clear and compelling sentences, you might want to lift a few sentences out of your abstract to include them in your paper! *Like a paper, an abstract can always be improved!*

REFERENCES


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