

## Choice of Key-Words for a scientific paper

Optimizing your paper for academic and web based search engines will greatly increase its chance of being viewed and/or cited in another manuscript.

Nowadays, most research information, if not all, is retrieved online through search engines and databases. It is therefore very important to provide good, descriptive keywords in your paper covering all the key concepts and contexts of your manuscript.

When you publish a paper, you can take measures to ensure your paper and research maximizes its potential within relevant academic networks. The number of citations a paper receives helps to determine the impact of your research. Even if your research is excellent, if no one finds your paper, it won't be cited. The closer your paper is to the number one search result, the more likely it will be read.

The crucial areas for optimization are your paper's abstract, title, and, as required by some journals, a list of keywords. All of these areas of your paper are freely available online through search engines.

When selecting keywords, think about your own online searches, choosing the keywords that most accurately describe your paper and the terms you would use if searching for it. Points to remember are:

**Be descriptive:** Keywords should describe as specifically as possible the topic about which you are writing. Keywords should identify your topic, academic subdiscipline, methodology, and anything that describes your research. Since it is not possible to optimize your manuscript with dozens of keywords, it is better to choose a few.

**Choose your search terms carefully:** Keywords should reflect a collective understanding of the subject. They should not be very unique, technical, and only understood by a small number of experts.

**Develop a clear, descriptive title:** Ensure the title contains the most important words related to the topic. Make your titles short, concise, and descriptive,

**Focus on key phrases in the abstract:** Key phrases, a maximum of three or four different ones, need to flow well and make sense within the abstract.

**Use synonyms:** Since some search engines do not index the document's full text, synonyms of important keywords should be mentioned a few times in the body of the text as well as in the abstract. Using synonyms, someone who does not know the common terminology used in the research field can find your paper.

**Check the competition for the words you have chosen:** It is a good idea to

**Check the competition for the words you have chosen:** It is a good idea to test your keywords in popular web search engines. If the search returns hundreds of documents, it may be better to choose another keyword with less competition. You can check the competition for your keywords in Google. There are tools that help, such as Google Trends, Google Insights, and Google Keyword.

**Consider the journal's policies regarding keywords:** As part of the optimization process, you need to consider the journal's or publisher's policies.