

Scientific Writing

Before starting your research it is important to know the state of the art and methodologies used. Your study has to advance the frontier of knowledge. Who are the main authors in the knowledge area?

Important remember

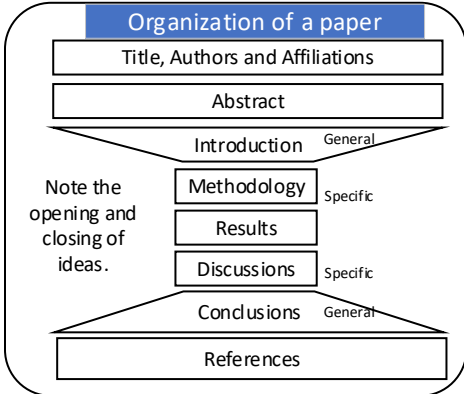
References: Re-type the text with your own words and put the references. Don't transcribe the text the way it is in the reference. "Direct references are rare, use quotation marks".

Which are the top five, or top ten, publications in my article area? What is the area default article format?

Scientific writing is concise, avoid sentences that "say nothing". It is really necessary everything you wrote?

Authors

First name: the researcher who did the article;
 Middle name: anyone who intellectually contributed to the article;
 Last name: the responsible for the research group / group head;



Titles

Be careful with long titles. Be concise.
 Be careful with common terms (jargons).
Tendency: Titles citing the big finding of the article.

Affiliations

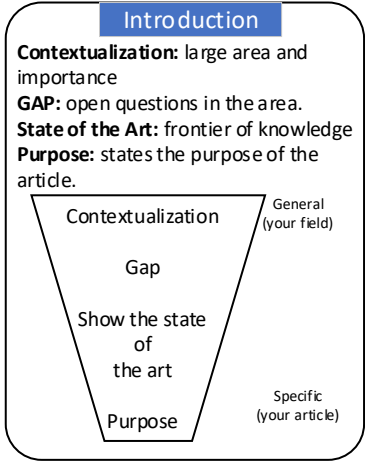
Name
 Group
 Department, Center
 Institution, University
 City, Zip code, PO Box
 Country

Citations

(It appears principally in the contextualization and GAP)
 Most recent papers
 Most important papers
 Main Authors in the area
 Large magazines
 Classics in the knowledge area / seminal papers
 Relevance / Motivation / Importance

Abstract

Main text of disclosure, it is a mini article. Everything that is important must be in the abstract, about 200 or 300 words.
Contextualization: large area and importance.
GAP: which needs to be explained in the area?
Purpose *: what is the article purpose?
Methodology: What is the methodology used in the article?
Results *: most important part of the article.
Conclusions *: main findings.
 There is a tendency of graphical abstracts in certain publications - it facilitates the identification.
 Review articles don't follow this standard.
 * This itens must have in all kinds of articles.



Good writing

Plain English: think in English – write in English;
Topic sentences: The topic sentence is the most important sentence in the paragraph. More used in results and discussions.
 Topic (keyword) – message
 Example: Gold has been used for years as a conductor material.
 Topic message
 Next sentences in this paragraph follow the same idea, when the idea changes the paragraph changes too. Put only the same idea in the paragraph.
Avoid complex sentences: Avoid long sentences, no more than 3 lines.
Flow: In the same paragraph put connections between ideas / phrases. Use for example: also, moreover, in the other words, however, in summary, concluding ... to link ideas.
Put the main action in the verb:
 Example:
 The dental implants will promote an improvement in the life of the patients.
 Patients' lives improved with dental implants.
Use past tense for sentences concerning to your findings. Example:
 This article showed the correlation between gap and superficial roughness.

Methodology

It is important to be described in detail. Follow methodologies / protocols that are already accepted in the area. The results change according to the methodology used. Beware with the number of samples, the ways of sampling and statistical tools used. The conclusions are weak when they are based on few samples.

Results / Discussion

It is where you prove your initial questions, hypothesis, ideas. Use figures with high quality. Link between introduction and results.

Usual sequence:
 - Background / Importance. Remember the importance of this analysis;
 - Describe the outcomes;
 - Interpretation;
 - Compare to results of other articles already published.
 Tendency of figures with long captions. The reader must understand the figure / table without reading the text.

Conclusions

The article importance for the large area of knowledge. It flows from specific to general.

- States main finding;
 - Interpretation of the main findings;
 - Contributions for the progress of the knowledge area.

First person to emphasize important information.
 The algorithm promoted the data analysis.
Active and passive voice:
 The active voice usually use less words. More words usually are used in the passive voice.
Avoid redundancies:
Formality in the speech:
Specific speech: Avoid dubious interpretation.
Rhythm: Vary sentences openers. Avoid monotonous speech.
 Dependent clause: Although
 Adverb: Recently
 Infinitive phrase: to improve
 Subject verb: The main analysis showed
 Prepositional phrase: In a few weeks

Take Care with the meaning, some examples:
 - to administer or to administrate?
 - analysis = singular / analyses = plural
 - reproductive or reproducible (different meaning)
 - increase / enhance / improve (different meanings)
 - data = plural
 - through / thorough / though (similar spelling)

Doubts consult the terms or adverbs in other publications:
<http://corpus.byu.edu/coca/>
www.springerexemplar.com

Reference - This is a summary of the main ideas, with some additions from the author, in order to facilitate the use. For more details consult the original study.
 Prof. Valtecir Zucolotto
www.escritacientifica.com