

# **Write and Rewrite**

## **Writing in Science (a few guidelines)**

**version 1.0**

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## Introduction

The purpose of this essay is to give you a few guidelines when writing a (scientific) article. If you already knew: all the better.

And don't to forget to enjoy the writing. It can be rewarding !

## Your readers

Always keep in mind that you are writing for your readers and not for yourself. Try to imagine how they will read your article. Do the readers already have some knowledge about the subject of your essay. If so, do not elaborate too much on the general information. If on the other hand your readers do not have some background information, be sure to include this general information.

## Structure of the article

### **Basic structure**

Before you start writing you should make an outline of the basic structure of your article. If the assignment already has a required structure it can be helpful to copy the headings and the accompanying (short) explanations into your draft for the article. That way you always know what should be in every part of your article. Do, however, not forget to delete these explanations in your final draft.

### **An article is not a Powerpoint**

Although starting with a basic structure of your article is strongly recommended, your article should read easily and have fluid sentences. There is a basic difference between a structure for your presentation (like in for instance a Powerpoint) and an article. The presentation cannot be done without the verbal additions of the person giving the presentation. The article on the other hand, does not have somebody presenting it. It should be clear and understandable by itself.

### **Problem and solution**

In a design process there is a circular interaction between the problem and the solution. The solution might cause you to redefine the problem, which in turn will probably influence the solution. However when writing an article the structure should be linear. You start with the problem and end with the solution.

### **Length of a sentence**

You will notice when writing your first draft that most sentences will be rather long. The reason for this is usually because you want to include as much information as possible in your article. You will try to include everything that comes to your mind when writing your first draft. Adding commas may solve part of this problem. But too many commas is a sign that you have to split your sentences. A good way of checking your sentences is reading them aloud. If you get lost, your reader will certainly get lost.

### **Repeating**

Avoid repeating yourself. Repeating can occur on several levels. For instance when writing about the solution, do not include the whole problem definition you included earlier on in the essay. Avoid using the same word over and over in a paragraph or a sentence. Try to find a suitable synonym.

## **Content**

### **General versus specific**

It is not always easy to know when to be specific and when to be more general. Think about what is relevant for your article. And then make a choice.

### **Stay (mostly) local**

When writing about a specific subject try not to solve all the problems in the world. Your article has first of all to solve the defined problem. There can be a possible secondary use of your solution, but that should be an addition, not the main theme.

### **Numbers and 'absolutes'**

Be careful with using numbers in a sentence. If you quantify something you will have to prove it. For instance when you write that 41% of the buildings are made of bricks, then you have to make a reference to an article that researches the number of brick buildings. It is better to keep it more general. *More than one third etc.* would be better.

The same is true of words like the 'most', the 'best' and the 'only'. Is that your opinion or is it 'the absolute truth'. For instance when you use the words 'the only example' in a sentence, the readers might start to think of another example they know.

### **Technical information**

The technical information should only be included if it is relevant to the subject. Just including a lot of technical information can be confusing to the reader. If the reader really wants to know more, he will go to the relevant literature. Include the reference in your text and do not forget to include the reference in the bibliography.

### **Subjective versus objective**

Although basically an article has to be objective, your personal opinion on certain aspects must be included. Be sure that it is clear to the reader that this is your opinion. It's your task to convince the reader.

### **Examples**

The use of examples can illustrate a certain point or aspect. But include only those examples that are both relevant and convincing.

### **Acronyms**

The use of abbreviations is recommended. But you have to explain the meaning when you use it for the first time in your article. Acronyms are usually written in capitals.

### **Exaggerations**

Avoid using exaggerations. Instead of the word *huge* the word *large* might be more appropriate.

## **Style**

### **Writing versus speaking**

Although writing is in a way "telling" your story you should not confuse between writing and speaking. When speaking we usually use a lot of redundant words. Words that have a function in a spoken sentence, but are not necessary in a written sentence.

## General

### **Original versus existing**

In scientific writing there is a kind of contradiction. To what extent should your article be based on existing information, and to what extent should it be based on new information (generated by you). Try to find a balance between the two, but do not forget that in the end you are educated to find the new and not to reproduce the existing.

### **Peer-reading**

One of the best ways to check if your article is clear and understandable is to give it to someone else to read. First of all to someone who has a certain knowledge about the subject. But also give it to someone who has very little knowledge about the subject. You will be surprised about the comments you will get. Use them to improve your article.