

Writing popular science

What is popular science?

"In the broadest terms, it is all scientific information that is not aimed at specialists in the field in question. The term often refers to the type of information that has been made easy to understand using a simple, entertaining style, often characterised by enthusiasm for the subject. The popularisation of science almost always involves striving to incorporate the scientific content in a wider cultural context, so that the significance of the subject for people's world view, outlook on life, everyday life, industrial applications or similar is emphasised."

(Nationalencyklopedin).

So, the art is to write in such a way that the text is comprehensible and interesting to a wider target audience, while remaining correct and relevant for those with prior knowledge of the subject.

So how do I do it? – A few guidelines

Getting started

- Adapt the content to the level of general knowledge of an educated adult who is not an engineer.
- It may be easier if you keep a specific person in mind when you are writing (how about a neighbour or a cousin?).
- Let your enthusiasm shine through in the text!

Structure

- Start with the most important information. It is good if this also arouses the reader's interest, e.g. results, consequences or why the research is needed. The method is rarely as interesting for the general public.
- While scientific texts often end with the results and conclusions, popular science texts often turn it upside down and start with the results.
- Good questions to answer are:
 - What conclusions have you reached?
 - In what way could the results be used?
 - What impact do your findings have on people and society?
 - Why do you think your results are relevant?

- What did you do?
- Possibly: who funded the research? / what partners were involved?
- Sometimes it works to structure the text like a crime novel or a mystery, where you start with a pressing question and present the results later.
- Write concisely; max. two pages, but preferably shorter.
- Space the text out on the page; use paragraphs where necessary.
- Feel free to use photographs or illustrations.

Educational devices

- Place your work in a wider context, relate it to something that readers can relate to and help them to understand why your research is important: for example, “every year x people die from disease y”, “exhaust emissions from petrol-driven vehicles contain poisonous substance z”.
- Give examples! Use a concrete example to explain something abstract or general. Go from the well-known to the unknown.

Language

- Avoid jargon, but if it is absolutely necessary then explain the terms well. However, do avoid using jargon at the beginning of the text as it impedes the reading process.
- Use vivid language! By this we mean varying repeated words and phrases, even if this means using unscientific terms.
- Short sentences are easier to read. Short words are grasped more quickly. Sentence length may also need to be varied.
- Write in Swedish if possible.
- Does the text feel heavy? Check if you have used a lot of nouns (e.g. restoration) – could they be made into verbs instead (restore)? To add variety, mix active verb forms (we studied the emulsions) and passive forms (the emulsions were studied). The active form is usually considered more direct and easier to read. Test the readability of your text at www.lix.se.
- Remember: writing simply can be difficult...
- Read the text aloud to yourself.

Finally

Let your neighbour or cousin read the text and ask him or her to tell you what he or she did not understand.

What are the benefits for me as a researcher in being able to write popular science?

Clarity and structure

- As an aid in your own vision work, to find an answer to questions such as: in what wider context is my research needed? Where is there a demand for it? Why is it important? etc.
- As a researcher you spend your time with a small, limited circle of people, primarily your supervisor (if you are a doctoral student). If you can explain and gain support for your research within a wider circle, you will have more opportunities to gather suggestions and comments on your research.

Society

- Help to increase the public's and politicians' knowledge of your subject in order to guide decisions on research funding allocations in the right direction. It is important for democracy that the public has a certain level of knowledge about issues such as energy – researchers have an important role to play in informing the public and encouraging debate.
- Many people are interested in science and research – your work is interesting! However, most people want to understand 'why', 'for whom', etc. rather than the scientific version; i.e. they do not necessarily want the details you think are most interesting.

Market

- Research funding bodies increasingly ask for popularised summaries.
- As background information for job applications, stipend applications and your CV.
- As background information in entrepreneurship and commercialisation (where the usefulness of the research must be especially clear).
- In some cases, explaining to project participants (municipalities, companies, authorities, other researchers) and convincing them of planned and ongoing projects and their results.

Marketing

- Profiling, e.g. to attract potential students.
- Ideas and information support for information officers at LTH/LU and research journalists as a basis for publicity in the scientific and daily press.
- To strengthen LTH's and LU's brand, which also benefits the researcher.

Greater professional impact

- Studies show that scientific articles that receive attention in the mass media are cited more by other researchers than comparable articles that journalists have not prioritised.

Feedback as a strategic means of control

- Input from non-researchers can be a way to develop one's own research and make sure that it is suited to the needs of these groups.

Education

- To improve your teaching – students appreciate lecturers who are able to place the subject in a wider context and make it more relevant.
- To be able to explain to friends and relatives what it is you do, once and for all.