

# STUDY WEEK CODING CAMP

## GUIDELINES - HOW TO WRITE YOUR PROJECT REPORT

### Why write a research report?

Writing a research report as part of your study week with Swiss Youth in Science is a valuable exercise. As a university student, you will be required to write a variety of reports for assessment purposes. Your goal should be to write clearly and concisely about your research topic so that the reader can easily understand the aim and results of your research. If you become a scientist, the number of papers you publish and their importance (as suggested by the “impact factor” of the journal in which they are published) are often viewed as a reflection of your academic achievements. Scientific papers have high standards of quality, are peer-reviewed by other scientists in your field and are formally disseminated and archived. Therefore, being able to write well is an important skill, which may be hard to learn at the beginning. Also, keep in mind that your reports and papers are often the only visible product of your work!

### Format of your report

A scientific report usually consists of the following sections:

**Title** The title should be less than twelve words and should clearly reflect the content of the paper. A good title is straightforward and uses keywords that researchers in a particular field will recognize.

**Abstract** This gives a very brief overview of the report in a highly condensed form. A good abstract is a short summary of the purpose of the report, the data presented, and the author's major conclusions.

**Introduction/Question** The introduction defines the subject of the report. It must outline the purpose(s) or objective(s) of the project and give the reader sufficient background to understand the rest of the report.

**Materials & Methods** Here, you outline the methodology used in your research, i.e. what you did and how you did it. This part must be written clearly, allowing other researchers to replicate your experiment if they choose to do so.

**Results** The results section should objectively summarize the data from the experiment(s) without discussing their implications. The data should be presented in diagrams, charts, graphs, etc. Make sure that these are relevant to the research, adding substance to the text rather than just duplicating what you've already said. All figures and tables should have descriptive titles and should include a caption explaining any symbols, abbreviations, or special methods used. Figures and tables should be numbered separately and should be referred to in the text.

**Discussion** In this section, you interpret your results in the context of the research area – what do your results mean? Your discussion should link back to the background and problems you identified in your introduction, including any existing theories that your work supports or contradicts. Suggestions for improving techniques or experimental design may also be included here. When writing this section,

you should explain the logic that allows you to support or reject your original hypotheses. You can also suggest future experiments that might clarify areas of doubt in your results or describe where your research approach ran into limitations.

**References** This section lists all articles, books, etc. cited in your report.

**Acknowledgements** In this case of a report for Swiss Youth in Science, you should add a section at the end in which you thank the persons who supported you during the study week.

## General tips

- **Collaborate** with your partners, even after the experiment is “over.” What trends did you observe? What kinds of illustrations should you use to represent your findings? Make the most of your time! Also, if you don’t know how to tackle one of the sections above, your **tutor will be happy to help** you.
- **Length of the report:** your project report should be as short as possible and if necessary (no longer than 5 pages!). Maximize quality rather than quantity.
- **Language:** please write the report in English, which is the language of science!