Instructions for creating a statistical poster

What is a statistical poster like?

A statistical poster is a presentation in the size of one A1 page. It tells an interesting story using statistical methods.

A good poster is simple and logical. It

- contains a goal and a research question, methods, important findings, sources and conclusions
- demonstrates phenomena with f.ex. pictures, graphs and figures
- •includes commentary of the results and the research
- can be understood without additional information on the topic or the research conducted
- is visually appealing and creative
- has an attractive headline
- is readable from slight distance
- is a summary of important observations.

Examples of earlier entries

https://iase-web.org/islp/Poster Competition 2018-2019.php?p=Prizewinners https://iase-web.org/islp/Poster Competition 2020-2021.php?p=Prizewinners

A competition poster is created in stages

Finding the question: what do you want information about?

First you must find a research question or a dilemma that your group wants to answer. A good research question is clearly defined, interesting, not too difficult, but also not self-explanatory.

Data collection: how will you collect the data?

Plan the method of data collection. You can gather the data yourselves or use already published, trustworthy statistics.

If you use external sources, verify their reliability and write the sources in your poster (For example, the author, name of publication, internet address, etc.)

Information quality: how do you ensure high quality?

Many factors affect the quality of information and the reliability of the conclusions made.

• Does the data reflect the overall scenario? How well does the sample represent the population that the research question refers to?

- Think about potential sources of misinformation. Even if the research is carefully
 planned and the randomness effect has been taken into account, there might
 still be errors in the results.
- Consider whether some matters could cause distortions in the results and mention them in the poster.

Analysing: of what does your data tell of?

Analyse the data you collected, manually or via a computer. Remember to look for an answer to your research problem or research question.

Visualise your data with numbers and graphs. You can use f.ex. histograms, bar charts, line charts, pie charts and box plots. Statistical quantities, such as mean, mode, median and standard deviation are also useful.

Making conclusions: what was discovered and what did you learn?

Conclusions are an important part of a statistical poster. The purpose of a statistical poster is not to just be a collection of statistics graphics and statistical key figures, but moreover, to show that you can think statistically, communicate research results clearly and to give the answer to your research question.

Once you have analysed the data, make interpretations and present the conclusions from the viewpoint of the original research question.

- Are the data you collected and the results interesting? To whom? Why?
- What conclusions can you make based on the research results?
- Are there limitations to the data collection method or the data used (such as sample size, data)?
- How could the research have been made better?
- Will new research topics be created based on this research you have done?

Content: what should be presented in the poster?

The statistical poster should state what was researched and how, present the main findings, consider the results and explain the most important conclusions.

Since the space is limited, it is recommended to avoid stating the same thing twice and only choose the figures that best demonstrate the information contained in the data.

It is recommended to add a subheading with key information to each chart or diagram. Remember to give the poster a headline and write down the sources!

Making a statistical poster: in what format is the information presented?

A statistical poster can be made in paper form or as a document (for example, PowerPoint). Statistical poster can be horizontal or vertical.

Make sure to leave 3 cm margins to the sides of the poster, so that the poster can be framed as needed. The posters that arrive in document format will be printed out in A1 size by Statistics Finland.