Background
To augment text with information, word-sized visualizations (WSV) have proven effective. However, there is still little knowledge about how WSV influence reading behaviour and whether there are differences between different kinds of WSV. With an online study, it can be examined how much faster or slower people read texts with WSV, as well as how well they retain information from that text. A suitable text type for this task are news articles that contain factual and statistical information, e.g. on the corona crisis, sports, or finances. The goal of this master thesis is to plan, implement, and evaluate an online study to test which different kinds of WSV have which effects on how people read texts with or without WSVs embedded.

Task
The tasks of this master thesis are to

1. Research studies on word-sized visualizations (WSV), their use in texts, as well as cognitive aspects of reading and understanding texts and images.
2. Develop hypotheses for the influence of WSV on reading behaviour.
3. Develop a study design that is suited to evaluate the influence of WSV on reading behaviour. Different WSV versions such as bar charts, line charts, and pie charts should be evaluated.
4. Extract data from news articles on different topics and visualize it for the different study conditions.
5. Conduct an online study on Prolific according to the previously developed study design to test the hypothesis and statistically evaluate the study results.
6. Write up the master thesis and present your results in our VIS-Colloquium.

Reference Literature

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