Course Intro

Welcome to the website for the course "Reproducible analysis reports with eye-tracking reading time data" for the Summer Semester 2023. Some quick info about the course:

- the language of instruction is English
- Block course:
  - April 12-14 (10am-4pm)
  - June 30th (2-6pm)
  - July 1st (10am-4pm)

Most documents are available as slides, html, and PDF on Moodle. Choose whichever you prefer (I suggest html).

Course description

- develop skills and know-how
  - create reproducible **reports & presentations** of eye-tracking reading data
  - common measures in **eye-tracking reading**
  - importance of **reproducible workflow**
  - **communicate** findings
- hands-on exercises in RStudio with the R programming language
  - data **wrangling** (`tidyverse`)
  - data **visualisation** (`ggplot2`),
  - descriptive and inferential **statistics** (`lme4` and `lmerTest`)

Course credits

- 4 LP
  - attendance and participation: 1LP
  - In-class exercises and preparation: 1LP
  - Assignments: 2 LP
    1. Reproducible (pilot) analysis report + Pre-registration
    2. Reproducible analysis report

Reading list

- this course does not have a heavy reading load, but a few readings are strongly recommended:
  - Open Science: (**kathawalla_easing_2021?**)
  - Eye-tracking reading: (**clifton_eye_2007?**); (**vasishth_what_2013?**);
  - A short recommendation for statistics for psycholinguists: (**vasishth_statistical_2016?**)
  - Statistics for Linguistics (textbook): (**winter_statistics_2019?**) (E-book available via Grimm)

Further readings

- there are lots of useful resources out there, specifically:
  - Bodo Winter's tutorials on linear (mixed) models (**winter_linear_2013?**; **winter_very_2014?**)
  - the PsyTeachR website is a *great* resource for hands-on stats and/or data analysis in R from the University of Glasgow School of Psychology and Neuroscience

Session Info

Save your session info at the end of each document. Our results very often depend on the version of R/RStudio/a package we used. This is a great first step towards creating a reproducible workflow!

```
sessionInfo()
```

```
R version 4.3.0 (2023-04-21)
Platform: aarch64-apple-darwin20 (64-bit)
Running under: macOS Ventura 13.2.1

Matrix products: default
BLAS:   /Library/Frameworks/R.framework/Versions/4.3-arm64/Resources/lib/libRblas.0.dylib
LAPACK: /Library/Frameworks/R.framework/Versions/4.3-arm64/Resources/lib/libRlapack.dylib;  L

locale:
[1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8

time zone: Europe/Berlin
tzcode source: internal
```

```
attached base packages:
[1] stats     graphics  grDevices utils     datasets  methods   base

loaded via a namespace (and not attached):
 [1] compiler_4.3.0  fastmap_1.1.1   cli_3.6.1       tools_4.3.0
 [5] htmltools_0.5.5 rstudioapi_0.14 yaml_2.3.7      rmarkdown_2.22
 [9] knitr_1.43      jsonlite_1.8.5  xfun_0.39       digest_0.6.31
[13] rlang_1.1.1     evaluate_0.21
```

References