

Data Exercise 3

First Author¹ & Ernst-August Doelle^{1,2}

¹ Wilhelm-Wundt-University

² Konstanz Business School

Author Note

Add complete departmental affiliations for each author here. Each new line herein must be indented, like this line.

Enter author note here.

The authors made the following contributions. First Author: Conceptualization, Writing - Original Draft Preparation, Writing - Review & Editing; Ernst-August Doelle: Writing - Review & Editing, Supervision.

Correspondence concerning this article should be addressed to First Author, Postal address. E-mail: my@email.com

Abstract

15 One or two sentences providing a **basic introduction** to the field, comprehensible to a
16 scientist in any discipline. Two to three sentences of **more detailed background**,
17 comprehensible to scientists in related disciplines. One sentence clearly stating the **general**
18 **problem** being addressed by this particular study. One sentence summarizing the main
19 result (with the words “**here we show**” or their equivalent). Two or three sentences
20 explaining what the **main result** reveals in direct comparison to what was thought to be
21 the case previously, or how the main result adds to previous knowledge. One or two
22 sentences to put the results into a more **general context**. Two or three sentences to
23 provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

24 *Keywords:* keywords

25 Word count: X

Data Exercise 3

Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants

Material

Procedure

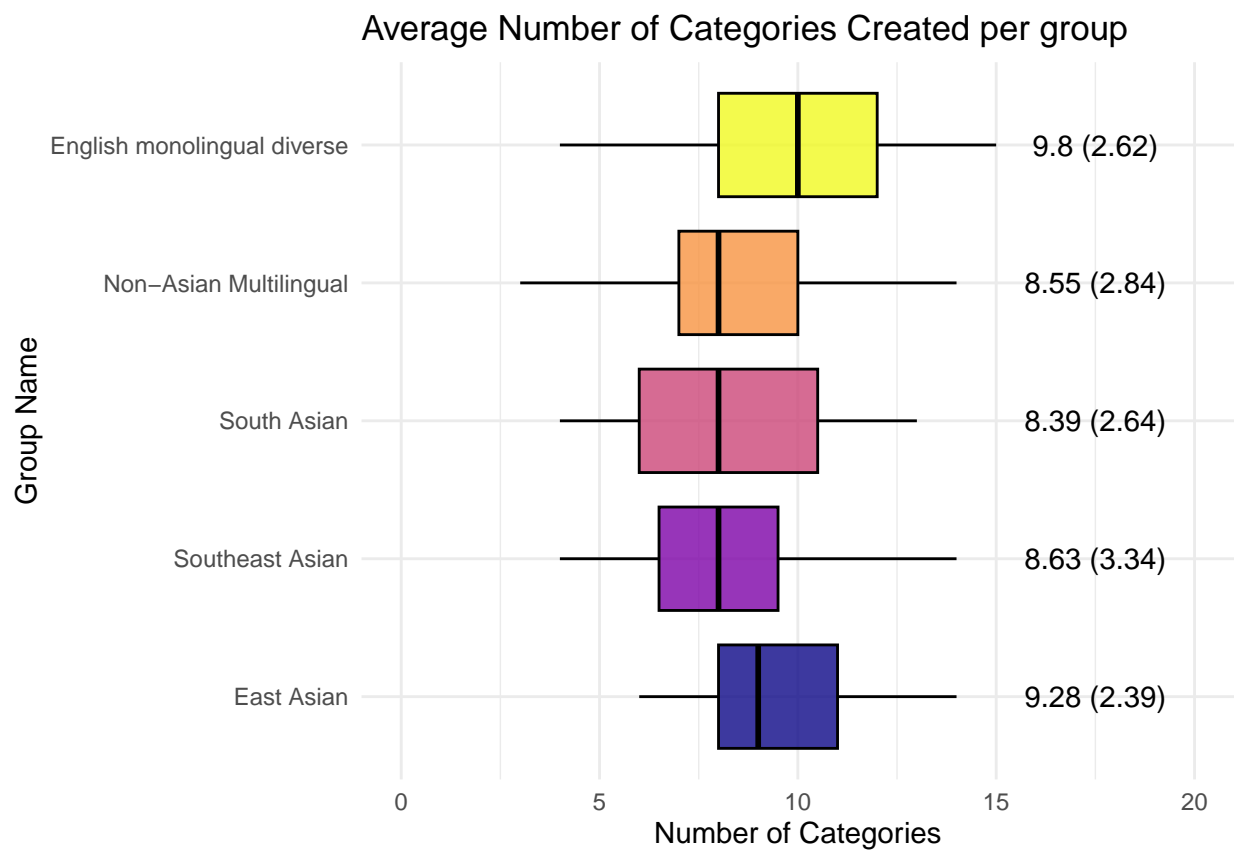
Data analysis

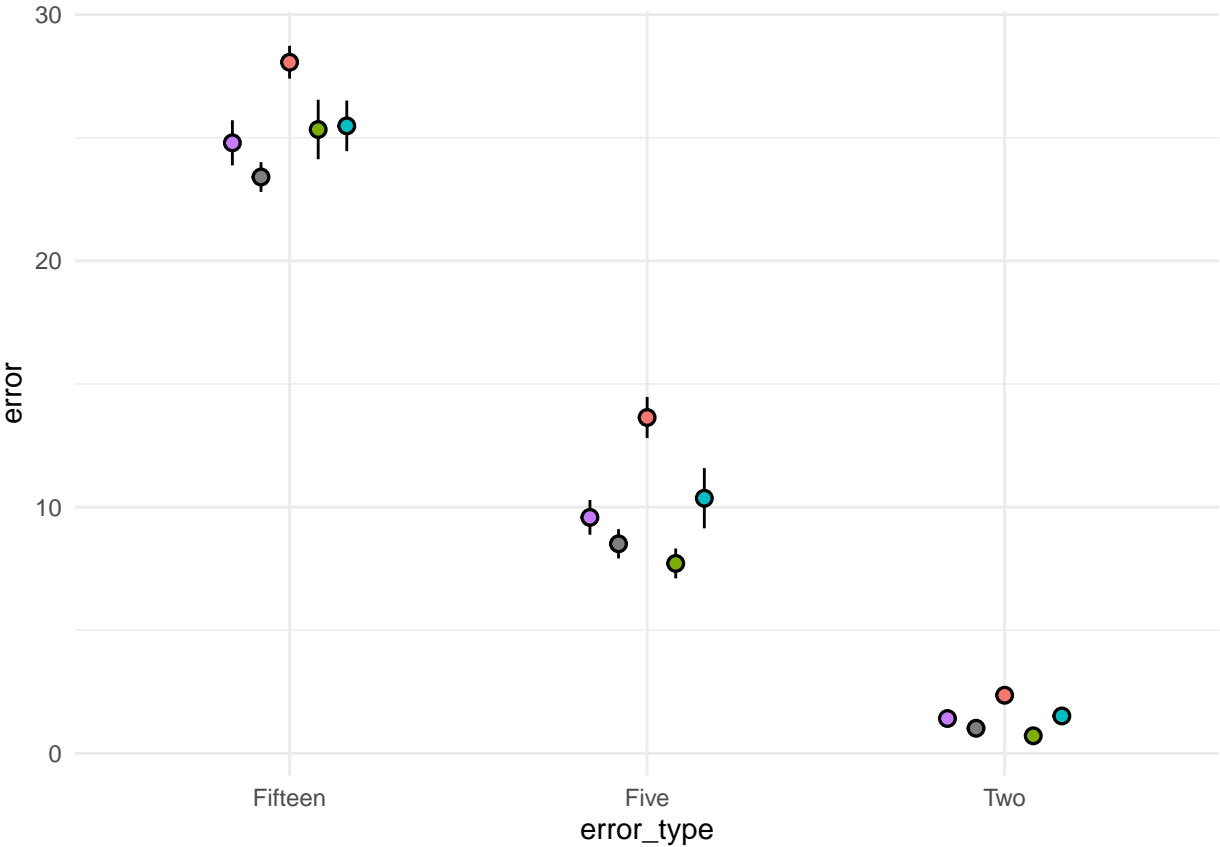
We used R (Version 4.4.1; R Core Team, 2024) and the R-packages *dplyr* (Version 1.1.4; Wickham, François, Henry, Müller, & Vaughan, 2023), *forcats* (Version 1.0.0; Wickham, 2023a), *ggdist* (Version 3.3.2; Kay, 2024), *ggplot2* (Version 3.5.1; Wickham, 2016), *lubridate* (Version 1.9.3; Grolemund & Wickham, 2011), *papaja* (Version 0.1.3; Aust & Barth, 2024), *purrr* (Version 1.0.2; Wickham & Henry, 2023), *readr* (Version 2.1.5; Wickham, Hester, & Bryan, 2024), *stringr* (Version 1.5.1; Wickham, 2023b), *tibble* (Version 3.2.1; Müller & Wickham, 2023), *tidyr* (Version 1.3.1; Wickham, Vaughan, & Girlich, 2024), *tidyverse* (Version 2.0.0; Wickham et al., 2019) and *tinylabels* (Version 0.2.4; Barth, 2023) for all our analyses.

Results

Number of Categories

Grouping data to prepare for the plot





47

48 ## NULL

49

Discussion

References

- Aust, F., & Barth, M. (2024). *papaja: Prepare reproducible APA journal articles with R Markdown*. <https://doi.org/10.32614/CRAN.package.papaja>
- Barth, M. (2023). *tinylabels: Lightweight variable labels*. Retrieved from <https://cran.r-project.org/package=tinylabels>
- Grolemund, G., & Wickham, H. (2011). Dates and times made easy with lubridate. *Journal of Statistical Software*, 40(3), 1–25. Retrieved from <https://www.jstatsoft.org/v40/i03/>
- Kay, M. (2024). ggdist: Visualizations of distributions and uncertainty in the grammar of graphics. *IEEE Transactions on Visualization and Computer Graphics*, 30(1), 414–424. <https://doi.org/10.1109/TVCG.2023.3327195>
- Müller, K., & Wickham, H. (2023). *Tibble: Simple data frames*. Retrieved from <https://CRAN.R-project.org/package=tibble>
- R Core Team. (2024). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. Retrieved from <https://www.R-project.org/>
- Wickham, H. (2016). *ggplot2: Elegant graphics for data analysis*. Springer-Verlag New York. Retrieved from <https://ggplot2.tidyverse.org>
- Wickham, H. (2023a). *Forcats: Tools for working with categorical variables (factors)*. Retrieved from <https://CRAN.R-project.org/package=forcats>
- Wickham, H. (2023b). *Stringr: Simple, consistent wrappers for common string operations*. Retrieved from <https://CRAN.R-project.org/package=stringr>
- Wickham, H., Averick, M., Bryan, J., Chang, W., McGowan, L. D., François, R., . . . Yutani, H. (2019). Welcome to the tidyverse. *Journal of Open Source Software*, 4(43), 1686. <https://doi.org/10.21105/joss.01686>
- Wickham, H., François, R., Henry, L., Müller, K., & Vaughan, D. (2023). *Dplyr: A grammar of data manipulation*. Retrieved from

77 <https://CRAN.R-project.org/package=dplyr>

78 Wickham, H., & Henry, L. (2023). *Purrr: Functional programming tools*. Retrieved from

79 <https://CRAN.R-project.org/package=purrr>

80 Wickham, H., Hester, J., & Bryan, J. (2024). *Readr: Read rectangular text data*. Retrieved

81 from <https://CRAN.R-project.org/package=readr>

82 Wickham, H., Vaughan, D., & Girlich, M. (2024). *Tidyr: Tidy messy data*. Retrieved from

83 <https://CRAN.R-project.org/package=tidyr>