

## Research design for Experimental Linguists

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### Literature:

- Litosseliti, L. (2018). *Research methods in linguistics* (Second edition). Bloomsbury Academic, Bloomsbury Publishing Plc.
- Quené, H. & Van den Bergh, H. (2023). Quantitative Methods and Statistics. Retrieved 13 June 2024 from <https://hugoquene.github.io/QMS-EN/>
- Winter, B. (2013). *Linear models and linear mixed effects models in R with linguistic applications* (arXiv:1308.5499). arXiv. <https://doi.org/10.48550/arXiv.1308.5499>
- Winter, B. (2019). *Statistics for Linguists: An Introduction Using R*. Routledge. <https://doi.org/10.4324/9781315165547>

### Day 1

#### Introduction course - Research question – predictions

- How to formulate a proper research question (RQ)
- Deduct predictions from RQ
- Practice with formulating RQs and predictions

Read:

- Litosseliti, 2018, Chapter 1 & 5

### Day 2

#### Statistical model – Variables – Level of measurement

- What is a statistical model?
- What are variables
  - Dependent / independent variables
  - Level of measurement
- What variables need to be measured in order to answer RQs
- What is the required level of measurement

Read:

- Quené & Van den Bergh, 2023, Chapter 2
- Winter, 2019, Chapter 3.1 – 3.4

### Day 3

#### Probability – Significance – Hypothesis testing – Power – Effect size

- How do we use probability to test hypotheses
- The importance of power and effect size in testing statistical models

Read:

- Quené & Van den Bergh, 2023, Chapter 10.1, 13 & 14
- Winter, 2019, Chapter 9

## **Day 4**

### Correlation / Regression – T-test / ANOVA

- Testing relationships between variables
- Testing differences between variables

Read:

- Quené & Van den Bergh, 2023, Chapter 15
- Winter, 2013, Part 1: Linear Models.
- Winter, 2019, Chapter 4 & 5

## **Day 5**

### Putting everything together

- Assignment: Analyze / dissect articles
  - What is the RQ and hypothesis
  - Which variables are measured to answer hypothesis
  - What is level of measurement of these variables
- Q&A (email questions beforehand)

Read:

- Dewaele, J. M. (2004). The emotional force of swearwords and taboo words in the speech of multilinguals. *Journal of multilingual and multicultural development*, 25(2-3), 204-222.
- Martey, R. M., Stromer-Galley, J., Consalvo, M., Wu, J., Banks, J., & Strzalkowski, T. (2015). Communicating age in Second Life: The contributions of textual and visual factors. *New Media & Society*, 17(1), 41-61.