

# .1 Introduction: Assignments

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## Instructions

Submit your answers to the six first exercises through Campus Global. The remainder of your assignments concern self-studies.

## Descriptive statistics

Imagine you measured the (average) voice pitch of 20 Korean (in Hz)<sup>1</sup>. The data looks as follows:

208, 158, 153.3, 259.7, 102.9, 86.1, 231.9, 285.1, 181.2, 266, 252.5, 185.5, 110.7, 236.8, 207.5

Codified as a vector, called `pitch`, in R:

```
pitch <- c(208, 158, 153.3, 259.7, 102.9,
           86.1, 231.9, 285.1, 181.2, 266,
           252.5, 185.5, 110.7, 236.8, 207.5)
```

Report the following summaries of this sample

1. Mean
2. Median
3. Variance
4. Standard deviation

Answer the following questions:

5. Does the mean give a good summary of this sample? Why (not)?
6. What is suggested by the mean and median leading to different summaries?

## Self-study

1. Work through Chapter 2 of Introduction to Data Analysis (Franke 2021): *Basics of R* (until the end of subsection 1.2);
2. Make sure you have a working R environment: either locally –on your computer– or by having made sure you can execute code in a colab document # References

Franke, Michael. 2021. *An Introduction to Data Analysis*.

Winter, Bodo, and Sven Grawunder. 2012. “The Phonetic Profile of Korean Formal and Informal Speech Registers.” *Journal of Phonetics* 40 (6). Elsevier BV: 808–15. <https://doi.org/10.1016/j.wocn.2012.08.006>.

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<sup>1</sup>This data was randomly sampled from the pre-processed and shortened version of the study of Winter and Grawunder (2012), as provided in Franke (2021). The data is accessible here.