

# Correlation and regression analysis – additional materials

Joanna Wachnicka



Co-funded by  
the European Union



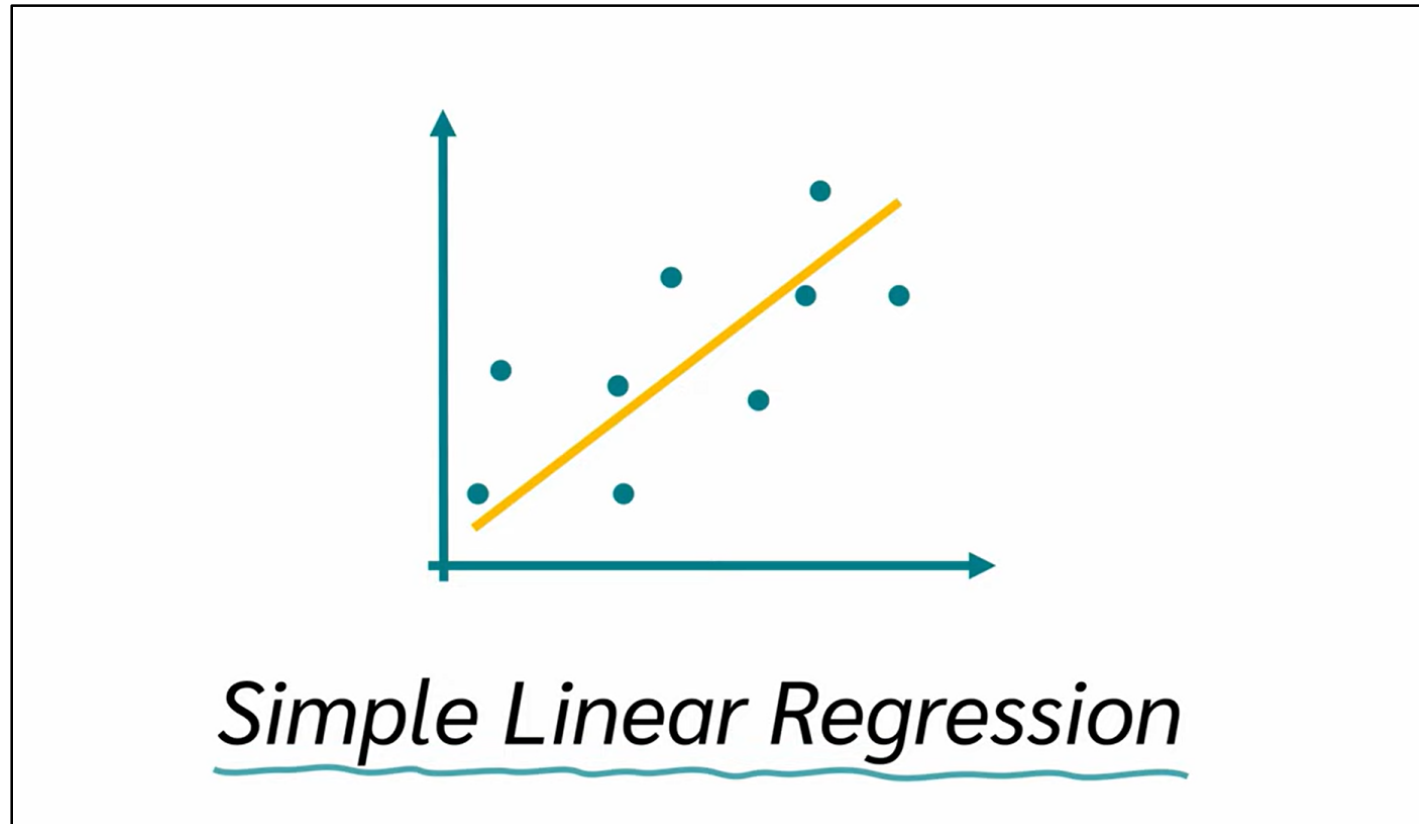
Co-funded by the European Union. Views and opinions expressed are however those of the author or authors only and do not necessarily reflect those of the European Union or the Foundation for the Development of the Education System. Neither the European Union nor the entity providing the grant can be held responsible for them.

# Simple Linear Regression Analysis For Beginners | Basic Predictive Analytics



<https://www.youtube.com/watch?v=hxrM8LJ-27w>

# How to calculate a linear regression function?



[https://youtu.be/gPfgB4ew3RY?si=\\_YN6QsTwW5WQHFMo](https://youtu.be/gPfgB4ew3RY?si=_YN6QsTwW5WQHFMo)

# How to calculate Pearson linear correlation coefficient?

## Calculating a Correlation Coefficient

Suppose we have the following values, with scores for  $N = 5$  people on the variables  $X$  and  $Y$ :

X	Y
1	6
2	4
3	5
4	3
5	2

This video skips the introduction to correlation and dives right into the hand calculations. If you watch the entire video (~9 minutes), you should know how to calculate Pearson's  $r$  by hand. (We cover the intro to correlation elsewhere.)

variables  $x$  and  $y$  and it's a small example because we're going to calculate

[https://youtu.be/IVOzIHx\\_15s?si=g32v40\\_J\\_ltk113p](https://youtu.be/IVOzIHx_15s?si=g32v40_J_ltk113p)