Course: **Human-Computer Interaction**
Topic: **Statistical data analysis in HCI research**
Resource: **A mock-up case (student assignment)**

The experiment investigates the effectiveness of task performance within a specially developed mobile application. The mobile application can be executed on two different observed devices (smartphone and tablet), and interaction can take place in two different ways (finger and stylus).

The controlled experiment included 20 participants who had to perform a specially designed task of longer duration on each device and using both interaction modalities. The order of the experimental conditions was counterbalanced accordingly. The values of task execution time for each participant are available in an Excel file (below).

Perform a statistical analysis of the available data and draw appropriate conclusions.

DATA

CASE 03	TABLET		SMARTPHONE	
	Finger	Stlyus	Finger	Stylus
	Task execution times [seconds]			
Participant 01	58.96	61.57	55.79	62.67
Participant 02	64.78	62.74	59.88	65.05
Participant 03	65.58	66.25	51.90	68.61
Participant 04	62.52	66.12	60.14	61.39
Participant 05	57.03	67.90	53.47	56.90
Participant 06	61.16	66.51	52.75	63.69
Participant 07	65.54	66.00	60.66	58.42

Participant 08	65.48	61.13	52.73	55.59
Participant 09	60.67	69.43	60.99	60.94
Participant 10	68.96	67.14	55.47	57.74
Participant 11	65.82	68.27	56.37	56.14
Participant 12	62.76	66.76	57.90	66.20
Participant 13	66.91	66.03	57.62	57.42
Participant 14	46.55	67.12	64.51	58.90
Participant 15	63.73	66.97	53.77	56.41
Participant 16	69.95	65.27	56.07	54.66
Participant 17	70.51	63.75	54.43	62.96
Participant 18	55.52	64.34	63.92	62.86
Participant 19	69.01	63.10	59.77	60.45
Participant 20	65.94	63.05	52.13	55.51