

Time spent on social media (GT students)

Expected mean difference on time spent :

$$\mu(\text{male}) - \mu(\text{female}) = 2.04 - 1.77 = 0.27 \text{ hours}$$

95 % confidence interval:

$$\mu(\text{male}) = [1.550409, 2.529591] \text{ hours}$$

$$\mu(\text{female}) = [1.468618, 2.529591] \text{ hours}$$

Hypothesis testing:

$$H_0 : \mu(\text{female}) - \mu(\text{male}) = 0$$

$$H_1 : \mu(\text{female}) > \mu(\text{male})$$

Using Welch two sample t-test and Wilcoxon

rank test, p-value turned out to be relatively high .

Hence fail to reject null analysis.

5 Numerical Summaries

Category	Male	Female
Min	0.50	0.50
1 st Quartile	1.00	1.00
Median	2.00	2.00
Mean	2.04	1.77
3 rd Quartile	3.00	3.00
Max	10.00	4.00

