

COSC6323 - Exercise 11

April 2021

Instructions

SUBMIT:

1. FirstName.LastName.rmd
2. FirstName.LastName.pdf

1 Task

Use file Exc_data.txt as a data source.

3 different schools want to compare their students' mean typing speed between their classes. They have also recorded the year or grade of each student. They are not interested in the effect of Year per se, but they want to account for the effect statistically. For each of the following, answer the question, and show the output from the analyses you used to answer the question.

- 1) What was the LS mean typing speed for each school's class?
- 2) Does School have a significant effect on typing speed?
- 3) Does Year have a significant effect on typing speed?
- 4) Are the residuals reasonably normal and homoscedastic?
- 5) Which schools had classes with significantly different mean typing speed from which others?
- 6) Does this result correspond to what you would have thought from looking at the plot of the LS means and standard errors?
- 7) Is this design balanced or unbalanced?