Assignment 7

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Exercise 1

Continue with the Pretherapy training in HW6.

(1) Apply the Fligner-Wolfe test, specify the hypotheses, using both the (exact) permutation test and large-sample approximation test, make a conclusion.

(2) Pretend we only observe the first observation in the Control, (TR), and the first two observations in (VTP) group. That is, $k = 3, n_1 = n_2 = 1$, and $n_3 = 2$. Calculate by hand, the permutation null distribution of the Fligner-Wolfe test statistic in (1) and use the smaller subset of data (as if it is the original data) to calculate the p-value.

(3) From the Kruskal-Wallis test result in HW6, researchers want to find out which pairs of pretherapy trainings are different. Specify the hypotheses, conduct appropriate test, make a conclusion.

(4) After conducting the Jonckheere-Terpstra Test, based on the result, is there a need to do further analysis? If so, what test can be done; if not, why. If answer yes, Conduct the test proposed, and make sure to specify the hypotheses.

(5) After conducting the Fligner-Wolfe test, based on the result, is there a need to do further analysis? If so, what test can be done; if not, why. If answer yes, conduct the test proposed, and make sure to specify the hypotheses.

(6) Summarize all relevant findings (relevant tests) for the Pretherapy training problem, from all previous assignments, as if you were the scientist finalizing the study results.