

LSD, Bonferroni, and Tukey tests.

- The least significant differences test (LSD) doesn't control the Type I error and is like doing multiple t-tests on the data (but only if the ANOVA is significant).
- Bonferroni and Tukey both control for Type I errors but are conservative. Bonferroni works by dividing the critical alpha level by the number of tests conducted.
- Tukey is less conservative than Bonferroni.

Our data look like this:

We have 45 participants, a between participants condition with 3 levels (Water vs. Single Espresso vs. Double Espresso), and Ability as our DV measured on a scale of 1-10.

	Participant	Condition	Ability
1	1	Water	4.817174
2	2	Water	5.410972
3	3	Water	5.733776
4	4	Water	4.361721
5	5	Water	5.471650
6	6	Water	5.502422
7	7	Water	5.070104
8	8	Water	5.081347
9	9	Water	5.074219
10	10	Water	4.943985
11	11	Water	5.109123
12	12	Water	4.900645
13	13	Water	4.989498
14	14	Water	5.325784
15	15	Water	5.683798
16	16	Single Espresso	7.050372
17	17	Single Espresso	6.870046
18	18	Single Espresso	6.689962
19	19	Single Espresso	6.723273
Showing 1 to 20 of 45 entries			