Experimental Design and Data Analysis

Statistical tests:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test name | Test statistic | Assumptions | Tests for | Information |
| Shapiro-Wilk |  |  | Normality | is rejected for small values of W |
| Bootstrap test |  |  | Whether T is expected under | Generate representative T\* and compare with test statistic T |
| t-test |  | Normally distributed | Differences in population mean | Under , has distribution |
| Binomial (sign) test |  |  | Difference in median | Sign test |
| Wilcoxon signed rank test |  | Symmetrically distributed |  |  |