## Oneway

### Notes

| | | |
|---|---|---|
| Output Created | | 28-FEB-2022 21:21:00 |
| Comments | | |
| Input | Data | /Users/benjamin/Desktop/AP Research/21-22-PAS-AP-Research/Experiment 2/E2-Raw/E2-AA.csv |
| | Active Dataset | DataSet6 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 25 |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| | Cases Used | Statistics for each analysis are based on cases with no missing data for any variable in the analysis. |
| Syntax | | ONEWAY Difference BY pH<br>/ES=OVERALL<br>/STATISTICS HOMOGENEITY<br>/MISSING ANALYSIS<br>/CRITERIA=CILEVEL (0.95)<br>/POSTHOC=TUKEY ALPHA(0.05). |
| Resources | Processor Time | 00:00:00.02 |
| | Elapsed Time | 00:00:00.00 |

[DataSet6]

### Tests of Homogeneity of Variances

| | | Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|---|---|
| Difference | Based on Mean | .484 | 4 | 20 | .747 |
| | Based on Median | .158 | 4 | 20 | .957 |
| | Based on Median and with adjusted df | .158 | 4 | 16.910 | .957 |
| | Based on trimmed mean | .480 | 4 | 20 | .750 |

## ANOVA

Difference

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | .007 | 4 | .002 | 4006.189 | <.001 |
| Within Groups | .000 | 20 | .000 | | |
| Total | .007 | 24 | | | |

## ANOVA Effect Sizes[a]

| | | Point Estimate | 95% Confidence Interval Lower | Upper |
|---|---|---|---|---|
| Difference | Eta-squared | .999 | .997 | .999 |
| | Epsilon-squared | .999 | .996 | .999 |
| | Omega-squared Fixed-effect | .998 | .996 | .999 |
| | Omega-squared Random-effect | .994 | .984 | .995 |

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

| (I) pH | (J) pH | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval Lower Bound | Upper Bound |
|---|---|---|---|---|---|---|
| 1 | 4 | -.0021400* | .0004054 | <.001 | -.003353 | -.000927 |
| | 7 | -.0040000* | .0004054 | <.001 | -.005213 | -.002787 |
| | 10 | -.0230400* | .0004054 | <.001 | -.024253 | -.021827 |
| | 13 | -.0422600* | .0004054 | <.001 | -.043473 | -.041047 |
| 4 | 1 | .0021400* | .0004054 | <.001 | .000927 | .003353 |
| | 7 | -.0018600* | .0004054 | .001 | -.003073 | -.000647 |
| | 10 | -.0209000* | .0004054 | <.001 | -.022113 | -.019687 |
| | 13 | -.0401200* | .0004054 | <.001 | -.041333 | -.038907 |
| 7 | 1 | .0040000* | .0004054 | <.001 | .002787 | .005213 |
| | 4 | .0018600* | .0004054 | .001 | .000647 | .003073 |
| | 10 | -.0190400* | .0004054 | <.001 | -.020253 | -.017827 |
| | 13 | -.0382600* | .0004054 | <.001 | -.039473 | -.037047 |
| 10 | 1 | .0230400* | .0004054 | <.001 | .021827 | .024253 |
| | 4 | .0209000* | .0004054 | <.001 | .019687 | .022113 |

## Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

| (I) pH | (J) pH | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| | 7 | .0190400* | .0004054 | <.001 | .017827 | .020253 |
| | 13 | -.0192200* | .0004054 | <.001 | -.020433 | -.018007 |
| 13 | 1 | .0422600* | .0004054 | <.001 | .041047 | .043473 |
| | 4 | .0401200* | .0004054 | <.001 | .038907 | .041333 |
| | 7 | .0382600* | .0004054 | <.001 | .037047 | .039473 |
| | 10 | .0192200* | .0004054 | <.001 | .018007 | .020433 |

*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

### Difference

Tukey HSD[a]

| pH | N | Subset for alpha = 0.05 | | | | |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | 5 | -.053500 | | | | |
| 4 | 5 | | -.051360 | | | |
| 7 | 5 | | | -.049500 | | |
| 10 | 5 | | | | -.030460 | |
| 13 | 5 | | | | | -.011240 |
| Sig. | | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.