# Oneway

## Notes

Output Created		28-FEB-2022 22:10:30
Comments		
Input	Data	/Users/benjamin/Deskto p/AP Research/21-22- PAS-AP- Research/Experiment 2/E2-Raw/E2-SA.csv
	Active Dataset	DataSet1
	Filter	<none></none>
	Weight	<none></none>
	Split File	<none></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 /ES=OVERALL /STATISTICS HOMOGENEITY /MISSING ANALYSIS /CRITERIA=CILEVEL (0.95) /POSTHOC=TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.00

### [DataSet1]

# Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Difference	Based on Mean	2.514	4	20	.074
	Based on Median	.817	4	20	.529
	Based on Median and with adjusted df	.817	4	13.601	.536
	Based on trimmed mean	2.283	4	20	.096

### **ANOVA**

#### Difference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.003	4	.001	3078.446	<.001
Within Groups	.000	20	.000		
Total	.003	24			

# ANOVA Effect Sizes<sup>a</sup>

			95% Confidence Interval		
		Point Estimate	Lower	Upper	
Difference	Eta-squared	.998	.996	.999	
	Epsilon-squared	.998	.995	.999	
	Omega-squared Fixed- effect	.998	.995	.999	
	Omega-squared Random-effect	.992	.979	.994	

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

### **Post Hoc Tests**

## **Multiple Comparisons**

Dependent Variable: Difference

Tukey HSD

		Mean			95% Confidence Interval	
(I) pH	(J) pH	Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
1	4	0161000 <sup>*</sup>	.0003267	<.001	017078	015122
	7	0211000 <sup>*</sup>	.0003267	<.001	022078	020122
	10	0283000*	.0003267	<.001	029278	027322
	13	0331200 <sup>*</sup>	.0003267	<.001	034098	032142
4	1	.0161000*	.0003267	<.001	.015122	.017078
	7	0050000*	.0003267	<.001	005978	004022
	10	0122000*	.0003267	<.001	013178	011222
	13	0170200*	.0003267	<.001	017998	016042
7	1	.0211000*	.0003267	<.001	.020122	.022078
	4	.0050000*	.0003267	<.001	.004022	.005978
	10	0072000*	.0003267	<.001	008178	006222
	13	0120200 <sup>*</sup>	.0003267	<.001	012998	011042
10	1	.0283000*	.0003267	<.001	.027322	.029278
	4	.0122000*	.0003267	<.001	.011222	.013178

# **Multiple Comparisons**

Dependent Variable: Difference

Tukey HSD

Mean				95% Confidence Interval		
(I) pH	(J) pH	Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
	7	.0072000*	.0003267	<.001	.006222	.008178
	13	0048200 *	.0003267	<.001	005798	003842
13	1	.0331200 *	.0003267	<.001	.032142	.034098
	4	.0170200*	.0003267	<.001	.016042	.017998
	7	.0120200*	.0003267	<.001	.011042	.012998
	10	.0048200*	.0003267	<.001	.003842	.005798

<sup>\*.</sup> The mean difference is significant at the 0.05 level.

# **Homogeneous Subsets**

#### Difference

Tukey HSD<sup>a</sup>

		Subset for alpha = 0.05					
рН	N	1	2	3	4	5	
1	5	036040					
4	5		019940				
7	5			014940			
10	5				007740		
13	5					002920	
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.