

Oneway

Notes

Output Created		28-FEB-2022 19:11:21
Comments		
Input	Data	/Users/benjamin/Desktop/AP Research/21-22-PAS-AP-Research/Experiment 1/E1-A/E1-A-5.csv
	Active Dataset	DataSet2
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	50
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 Temperature /ES=OVERALL /STATISTICS HOMOGENEITY /MISSING ANALYSIS /CRITERIA=CILEVEL(0.95) /POSTHOC=TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.00

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Difference	Based on Mean	.554	9	40	.826
	Based on Median	.362	9	40	.947
	Based on Median and with adjusted df	.362	9	33.021	.945
	Based on trimmed mean	.549	9	40	.829

ANOVA

Difference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.098	9	.011	92062.863	<.001
Within Groups	.000	40	.000		
Total	.098	49			

ANOVA Effect Sizes^a

		Point Estimate	95% Confidence Interval	
			Lower	Upper
Difference	Eta-squared	1.000	1.000	1.000
	Epsilon-squared	1.000	1.000	1.000
	Omega-squared Fixed-effect	1.000	1.000	1.000
	Omega-squared Random-effect	.999	.999	1.000

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% ...
(I) Temperature	(J) Temperature	Difference (I-J)	Std. Error	Sig.	Lower Bound
5	10	-.0089200 *	.0002173	<.001	-.009647
	15	-.0411400 *	.0002173	<.001	-.041867
	20	-.0609400 *	.0002173	<.001	-.061667
	25	-.0708800 *	.0002173	<.001	-.071607
	30	-.0929000 *	.0002173	<.001	-.093627
	35	-.1062200 *	.0002173	<.001	-.106947
	40	-.1189200 *	.0002173	<.001	-.119647
	45	-.1240600 *	.0002173	<.001	-.124787
	50	-.1257000 *	.0002173	<.001	-.126427
10	5	.0089200 *	.0002173	<.001	.008193
	15	-.0322200 *	.0002173	<.001	-.032947
	20	-.0520200 *	.0002173	<.001	-.052747
	25	-.0619600 *	.0002173	<.001	-.062687
	30	-.0839800 *	.0002173	<.001	-.084707
	35	-.0973000 *	.0002173	<.001	-.098027

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
5	10	-.008193
	15	-.040413
	20	-.060213
	25	-.070153
	30	-.092173
	35	-.105493
	40	-.118193
	45	-.123333
	50	-.124973
10	5	.009647
	15	-.031493
	20	-.051293
	25	-.061233
	30	-.083253
	35	-.096573

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
15	40	-.1100000 *	.0002173	<.001	-.110727
	45	-.1151400 *	.0002173	<.001	-.115867
	50	-.1167800 *	.0002173	<.001	-.117507
	5	.0411400 *	.0002173	<.001	.040413
	10	.0322200 *	.0002173	<.001	.031493
	20	-.0198000 *	.0002173	<.001	-.020527
	25	-.0297400 *	.0002173	<.001	-.030467
	30	-.0517600 *	.0002173	<.001	-.052487
	35	-.0650800 *	.0002173	<.001	-.065807
	40	-.0777800 *	.0002173	<.001	-.078507
	45	-.0829200 *	.0002173	<.001	-.083647
	50	-.0845600 *	.0002173	<.001	-.085287
20	5	.0609400 *	.0002173	<.001	.060213
	10	.0520200 *	.0002173	<.001	.051293
	15	.0198000 *	.0002173	<.001	.019073
	25	-.0099400 *	.0002173	<.001	-.010667
	30	-.0319600 *	.0002173	<.001	-.032687
	35	-.0452800 *	.0002173	<.001	-.046007
	40	-.0579800 *	.0002173	<.001	-.058707
	45	-.0631200 *	.0002173	<.001	-.063847
	50	-.0647600 *	.0002173	<.001	-.065487
	5	.0708800 *	.0002173	<.001	.070153
25	10	.0619600 *	.0002173	<.001	.061233
	15	.0297400 *	.0002173	<.001	.029013
	20	.0099400 *	.0002173	<.001	.009213
	30	-.0220200 *	.0002173	<.001	-.022747
	35	-.0353400 *	.0002173	<.001	-.036067
	40	-.0480400 *	.0002173	<.001	-.048767
	45	-.0531800 *	.0002173	<.001	-.053907
	50	-.0548200 *	.0002173	<.001	-.055547
	5	.0929000 *	.0002173	<.001	.092173
	10	.0839800 *	.0002173	<.001	.083253
30	15	.0517600 *	.0002173	<.001	.051033
	20	.0319600 *	.0002173	<.001	.031233

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
15	40	-.109273
	45	-.114413
	50	-.116053
	5	.041867
	10	.032947
	20	-.019073
	25	-.029013
	30	-.051033
	35	-.064353
	40	-.077053
	45	-.082193
	50	-.083833
20	5	.061667
	10	.052747
	15	.020527
	25	-.009213
	30	-.031233
	35	-.044553
	40	-.057253
	45	-.062393
	50	-.064033
25	5	.071607
	10	.062687
	15	.030467
	20	.010667
	30	-.021293
	35	-.034613
	40	-.047313
	45	-.052453
	50	-.054093
30	5	.093627
	10	.084707
	15	.052487
	20	.032687

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
	25	.0220200 *	.0002173	<.001	.021293
	35	-.0133200 *	.0002173	<.001	-.014047
	40	-.0260200 *	.0002173	<.001	-.026747
	45	-.0311600 *	.0002173	<.001	-.031887
	50	-.0328000 *	.0002173	<.001	-.033527
35	5	.1062200 *	.0002173	<.001	.105493
	10	.0973000 *	.0002173	<.001	.096573
	15	.0650800 *	.0002173	<.001	.064353
	20	.0452800 *	.0002173	<.001	.044553
	25	.0353400 *	.0002173	<.001	.034613
	30	.0133200 *	.0002173	<.001	.012593
	40	-.0127000 *	.0002173	<.001	-.013427
	45	-.0178400 *	.0002173	<.001	-.018567
	50	-.0194800 *	.0002173	<.001	-.020207
40	5	.1189200 *	.0002173	<.001	.118193
	10	.1100000 *	.0002173	<.001	.109273
	15	.0777800 *	.0002173	<.001	.077053
	20	.0579800 *	.0002173	<.001	.057253
	25	.0480400 *	.0002173	<.001	.047313
	30	.0260200 *	.0002173	<.001	.025293
	35	.0127000 *	.0002173	<.001	.011973
	45	-.0051400 *	.0002173	<.001	-.005867
	50	-.0067800 *	.0002173	<.001	-.007507
45	5	.1240600 *	.0002173	<.001	.123333
	10	.1151400 *	.0002173	<.001	.114413
	15	.0829200 *	.0002173	<.001	.082193
	20	.0631200 *	.0002173	<.001	.062393
	25	.0531800 *	.0002173	<.001	.052453
	30	.0311600 *	.0002173	<.001	.030433
	35	.0178400 *	.0002173	<.001	.017113
	40	.0051400 *	.0002173	<.001	.004413
	50	-.0016400 *	.0002173	<.001	-.002367
50	5	.1257000 *	.0002173	<.001	.124973
	10	.1167800 *	.0002173	<.001	.116053

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
	25	.022747
	35	-.012593
	40	-.025293
	45	-.030433
	50	-.032073
35	5	.106947
	10	.098027
	15	.065807
	20	.046007
	25	.036067
	30	.014047
	40	-.011973
	45	-.017113
	50	-.018753
40	5	.119647
	10	.110727
	15	.078507
	20	.058707
	25	.048767
	30	.026747
	35	.013427
	45	-.004413
	50	-.006053
45	5	.124787
	10	.115867
	15	.083647
	20	.063847
	25	.053907
	30	.031887
	35	.018567
	40	.005867
	50	-.000913
50	5	.126427
	10	.117507

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
	15	.0845600 *	.0002173	<.001	.083833
	20	.0647600 *	.0002173	<.001	.064033
	25	.0548200 *	.0002173	<.001	.054093
	30	.0328000 *	.0002173	<.001	.032073
	35	.0194800 *	.0002173	<.001	.018753
	40	.0067800 *	.0002173	<.001	.006053
	45	.0016400 *	.0002173	<.001	.000913

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	95% ... Upper Bound
	15	.085287
	20	.065487
	25	.055547
	30	.033527
	35	.020207
	40	.007507
	45	.002367

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

Homogeneous Subsets

Difference

Tukey HSD^a

Temperature	N	Subset for alpha = 0.05					
		1	2	3	4	5	6
5	5	-.137940					
10	5		-.129020				
15	5			-.096800			
20	5				-.077000		
25	5					-.067060	
30	5						-.045040
35	5						
40	5						
45	5						
50	5						
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Difference

Tukey HSD^a

Temperature	Subset for alpha = 0.05			
	7	8	9	10
5				
10				
15				
20				
25				
30				
35	-.031720			
40		-.019020		
45			-.013880	
50				-.012240
Sig.	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.