

Oneway

Notes

Output Created		28-FEB-2022 20:44:09
Comments		
Input	Data	/Users/benjamin/Desktop/AP Research/21-22-PAS-AP-Research/Experiment 1/E1-Raw/E1-AA.csv
	Active Dataset	DataSet1
	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

[DataSet1]

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Difference	Based on Mean	.865	9	40	.563
	Based on Median	.492	9	40	.871
	Based on Median and with adjusted df	.492	9	25.685	.866
	Based on trimmed mean	.847	9	40	.578

ANOVA

Difference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.017	9	.002	10077.453	<.001
Within Groups	.000	40	.000		
Total	.017	49			

ANOVA Effect Sizes^a

		Point Estimate	95% Confidence Interval	
			Lower	Upper
Difference	Eta-squared	1.000	.999	1.000
	Epsilon-squared	.999	.999	1.000
	Omega-squared Fixed-effect	.999	.999	1.000
	Omega-squared Random-effect	.995	.990	.996

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) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
5	10	-.0016000 *	.0002752	<.001	-.002521
	15	-.0074800 *	.0002752	<.001	-.008401
	20	-.0021600 *	.0002752	<.001	-.003081
	25	-.0086000 *	.0002752	<.001	-.009521
	30	-.0418000 *	.0002752	<.001	-.042721
	35	-.0386600 *	.0002752	<.001	-.039581
	40	-.0381600 *	.0002752	<.001	-.039081
	45	-.0417800 *	.0002752	<.001	-.042701
	50	-.0427000 *	.0002752	<.001	-.043621
10	5	.0016000 *	.0002752	<.001	.000679
	15	-.0058800 *	.0002752	<.001	-.006801
	20	-.0005600	.0002752	.581	-.001481
	25	-.0070000 *	.0002752	<.001	-.007921
	30	-.0402000 *	.0002752	<.001	-.041121
	35	-.0370600 *	.0002752	<.001	-.037981

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
5	10	-.000679
	15	-.006559
	20	-.001239
	25	-.007679
	30	-.040879
	35	-.037739
	40	-.037239
	45	-.040859
	50	-.041779
10	5	.002521
	15	-.004959
	20	.000361
	25	-.006079
	30	-.039279
	35	-.036139

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
15	40	-.0365600 *	.0002752	<.001	-.037481
	45	-.0401800 *	.0002752	<.001	-.041101
	50	-.0411000 *	.0002752	<.001	-.042021
	5	.0074800 *	.0002752	<.001	.006559
	10	.0058800 *	.0002752	<.001	.004959
	20	.0053200 *	.0002752	<.001	.004399
	25	-.0011200 *	.0002752	.007	-.002041
	30	-.0343200 *	.0002752	<.001	-.035241
	35	-.0311800 *	.0002752	<.001	-.032101
	40	-.0306800 *	.0002752	<.001	-.031601
	45	-.0343000 *	.0002752	<.001	-.035221
	50	-.0352200 *	.0002752	<.001	-.036141
20	5	.0021600 *	.0002752	<.001	.001239
	10	.0005600	.0002752	.581	-.000361
	15	-.0053200 *	.0002752	<.001	-.006241
	25	-.0064400 *	.0002752	<.001	-.007361
	30	-.0396400 *	.0002752	<.001	-.040561
	35	-.0365000 *	.0002752	<.001	-.037421
	40	-.0360000 *	.0002752	<.001	-.036921
	45	-.0396200 *	.0002752	<.001	-.040541
	50	-.0405400 *	.0002752	<.001	-.041461
25	5	.0086000 *	.0002752	<.001	.007679
	10	.0070000 *	.0002752	<.001	.006079
	15	.0011200 *	.0002752	.007	.000199
	20	.0064400 *	.0002752	<.001	.005519
	30	-.0332000 *	.0002752	<.001	-.034121
	35	-.0300600 *	.0002752	<.001	-.030981
	40	-.0295600 *	.0002752	<.001	-.030481
	45	-.0331800 *	.0002752	<.001	-.034101
	50	-.0341000 *	.0002752	<.001	-.035021
30	5	.0418000 *	.0002752	<.001	.040879
	10	.0402000 *	.0002752	<.001	.039279
	15	.0343200 *	.0002752	<.001	.033399
	20	.0396400 *	.0002752	<.001	.038719
	25	.0332000 *	.0002752	<.001	.032279

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
15	40	-.035639
	45	-.039259
	50	-.040179
	5	.008401
	10	.006801
	20	.006241
	25	-.000199
	30	-.033399
	35	-.030259
	40	-.029759
	45	-.033379
	50	-.034299
20	5	.003081
	10	.001481
	15	-.004399
	25	-.005519
	30	-.038719
	35	-.035579
	40	-.035079
	45	-.038699
	50	-.039619
25	5	.009521
	10	.007921
	15	.002041
	20	.007361
	30	-.032279
	35	-.029139
	40	-.028639
	45	-.032259
	50	-.033179
30	5	.042721
	10	.041121
	15	.035241
	20	.040561
	25	.034121

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

		Mean			95% ...
(I) Temperature	(J) Temperature	Difference (I-J)	Std. Error	Sig.	Lower Bound
	35	.0031400 *	.0002752	<.001	.002219
	40	.0036400 *	.0002752	<.001	.002719
	45	.0000200	.0002752	1.000	-.000901
	50	-.0009000	.0002752	.060	-.001821
35	5	.0386600 *	.0002752	<.001	.037739
	10	.0370600 *	.0002752	<.001	.036139
	15	.0311800 *	.0002752	<.001	.030259
	20	.0365000 *	.0002752	<.001	.035579
	25	.0300600 *	.0002752	<.001	.029139
	30	-.0031400 *	.0002752	<.001	-.004061
	40	.0005000	.0002752	.721	-.000421
	45	-.0031200 *	.0002752	<.001	-.004041
	50	-.0040400 *	.0002752	<.001	-.004961
40	5	.0381600 *	.0002752	<.001	.037239
	10	.0365600 *	.0002752	<.001	.035639
	15	.0306800 *	.0002752	<.001	.029759
	20	.0360000 *	.0002752	<.001	.035079
	25	.0295600 *	.0002752	<.001	.028639
	30	-.0036400 *	.0002752	<.001	-.004561
	35	-.0005000	.0002752	.721	-.001421
	45	-.0036200 *	.0002752	<.001	-.004541
	50	-.0045400 *	.0002752	<.001	-.005461
45	5	.0417800 *	.0002752	<.001	.040859
	10	.0401800 *	.0002752	<.001	.039259
	15	.0343000 *	.0002752	<.001	.033379
	20	.0396200 *	.0002752	<.001	.038699
	25	.0331800 *	.0002752	<.001	.032259
	30	-.0000200	.0002752	1.000	-.000941
	35	.0031200 *	.0002752	<.001	.002199
	40	.0036200 *	.0002752	<.001	.002699
	50	-.0009200	.0002752	.051	-.001841
50	5	.0427000 *	.0002752	<.001	.041779
	10	.0411000 *	.0002752	<.001	.040179
	15	.0352200 *	.0002752	<.001	.034299
	20	.0405400 *	.0002752	<.001	.039619

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
	35	.004061
	40	.004561
	45	.000941
	50	.000021
35	5	.039581
	10	.037981
	15	.032101
	20	.037421
	25	.030981
	30	-.002219
	40	.001421
	45	-.002199
	50	-.003119
40	5	.039081
	10	.037481
	15	.031601
	20	.036921
	25	.030481
	30	-.002719
	35	.000421
	45	-.002699
	50	-.003619
45	5	.042701
	10	.041101
	15	.035221
	20	.040541
	25	.034101
	30	.000901
	35	.004041
	40	.004541
	50	.000001
50	5	.043621
	10	.042021
	15	.036141
	20	.041461

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
	25	.0341000 *	.0002752	<.001	.033179
	30	.0009000	.0002752	.060	-.000021
	35	.0040400 *	.0002752	<.001	.003119
	40	.0045400 *	.0002752	<.001	.003619
	45	.0009200	.0002752	.051	-.000001

Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Upper Bound
	25	.035021
	30	.001821
	35	.004961
	40	.005461
	45	.001841

*. 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	-.058100					
10	5		-.056500				
20	5		-.055940				
15	5			-.050620			
25	5				-.049500		
40	5					-.019940	
35	5					-.019440	
45	5						-.016320
30	5						-.016300
50	5						-.015400
Sig.		1.000	.581	1.000	1.000	.721	.051

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.