Oneway

Notes

Output Created		28-FEB-2022 20:49:20
Comments		
Input	Data	/Users/benjamin/Desktop/AP Research/21-22-PAS-AP-Research/Experiment 1/E1-Raw/E1-EA.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	2.770	9	40	.013
	Based on Median	.826	9	40	.596
	Based on Median and with adjusted df	.826	9	6.969	.615
	Based on trimmed mean	2.147	9	40	.048

ANOVA

Difference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.642	9	.071	105452.154	<.001
Within Groups	.000	40	.000		
Total	.642	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	1.000	.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

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% … Lower Bound
5	10	-.0178400*	.0005201	<.001	-.019581
	15	-.0420600*	.0005201	<.001	-.043801
	20	-.0799800*	.0005201	<.001	-.081721
	25	-.1620400*	.0005201	<.001	-.163781
	30	-.2550200*	.0005201	<.001	-.256761
	35	-.2656200*	.0005201	<.001	-.267361
	40	-.2703400*	.0005201	<.001	-.272081
	45	-.2819200*	.0005201	<.001	-.283661
	50	-.2838800*	.0005201	<.001	-.285621
10	5	.0178400*	.0005201	<.001	.016099
	15	-.0242200*	.0005201	<.001	-.025961
	20	-.0621400*	.0005201	<.001	-.063881
	25	-.1442000*	.0005201	<.001	-.145941
	30	-.2371800*	.0005201	<.001	-.238921
	35	-.2477800*	.0005201	<.001	-.249521

Multiple Comparisons

Dependent Variable: Difference
Tukey HSD

(I) Temperature	(J) Temperature	95% … Upper Bound
5	10	-.016099
	15	-.040319
	20	-.078239
	25	-.160299
	30	-.253279
	35	-.263879
	40	-.268599
	45	-.280179
	50	-.282139
10	5	.019581
	15	-.022479
	20	-.060399
	25	-.142459
	30	-.235439
	35	-.246039

Multiple Comparisons

Dependent Variable: Difference
Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
	40	-.2525000 *	.0005201	<.001	-.254241
	45	-.2640800 *	.0005201	<.001	-.265821
	50	-.2660400 *	.0005201	<.001	-.267781
15	5	.0420600 *	.0005201	<.001	.040319
	10	.0242200 *	.0005201	<.001	.022479
	20	-.0379200 *	.0005201	<.001	-.039661
	25	-.1199800 *	.0005201	<.001	-.121721
	30	-.2129600 *	.0005201	<.001	-.214701
	35	-.2235600 *	.0005201	<.001	-.225301
	40	-.2282800 *	.0005201	<.001	-.230021
	45	-.2398600 *	.0005201	<.001	-.241601
	50	-.2418200 *	.0005201	<.001	-.243561
20	5	.0799800 *	.0005201	<.001	.078239
	10	.0621400 *	.0005201	<.001	.060399
	15	.0379200 *	.0005201	<.001	.036179
	25	-.0820600 *	.0005201	<.001	-.083801
	30	-.1750400 *	.0005201	<.001	-.176781
	35	-.1856400 *	.0005201	<.001	-.187381
	40	-.1903600 *	.0005201	<.001	-.192101
	45	-.2019400 *	.0005201	<.001	-.203681
	50	-.2039000 *	.0005201	<.001	-.205641
25	5	.1620400 *	.0005201	<.001	.160299
	10	.1442000 *	.0005201	<.001	.142459
	15	.1199800 *	.0005201	<.001	.118239
	20	.0820600 *	.0005201	<.001	.080319
	30	-.0929800 *	.0005201	<.001	-.094721
	35	-.1035800 *	.0005201	<.001	-.105321
	40	-.1083000 *	.0005201	<.001	-.110041
	45	-.1198800 *	.0005201	<.001	-.121621
	50	-.1218400 *	.0005201	<.001	-.123581
30	5	.2550200 *	.0005201	<.001	.253279
	10	.2371800 *	.0005201	<.001	.235439
	15	.2129600 *	.0005201	<.001	.211219
	20	.1750400 *	.0005201	<.001	.173299

Multiple Comparisons

Dependent Variable: Difference
Tukey HSD

(I) Temperature	(J) Temperature	95% … Upper Bound
	40	-.250759
	45	-.262339
	50	-.264299
15	5	.043801
	10	.025961
	20	-.036179
	25	-.118239
	30	-.211219
	35	-.221819
	40	-.226539
	45	-.238119
	50	-.240079
20	5	.081721
	10	.063881
	15	.039661
	25	-.080319
	30	-.173299
	35	-.183899
	40	-.188619
	45	-.200199
	50	-.202159
25	5	.163781
	10	.145941
	15	.121721
	20	.083801
	30	-.091239
	35	-.101839
	40	-.106559
	45	-.118139
	50	-.120099
30	5	.256761
	10	.238921
	15	.214701
	20	.176781

Multiple Comparisons

Dependent Variable: Difference
Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
	25	.0929800 *	.0005201	<.001	.091239
	35	-.0106000 *	.0005201	<.001	-.012341
	40	-.0153200 *	.0005201	<.001	-.017061
	45	-.0269000 *	.0005201	<.001	-.028641
	50	-.0288600 *	.0005201	<.001	-.030601
35	5	.2656200 *	.0005201	<.001	.263879
	10	.2477800 *	.0005201	<.001	.246039
	15	.2235600 *	.0005201	<.001	.221819
	20	.1856400 *	.0005201	<.001	.183899
	25	.1035800 *	.0005201	<.001	.101839
	30	.0106000 *	.0005201	<.001	.008859
	40	-.0047200 *	.0005201	<.001	-.006461
	45	-.0163000 *	.0005201	<.001	-.018041
	50	-.0182600 *	.0005201	<.001	-.020001
40	5	.2703400 *	.0005201	<.001	.268599
	10	.2525000 *	.0005201	<.001	.250759
	15	.2282800 *	.0005201	<.001	.226539
	20	.1903600 *	.0005201	<.001	.188619
	25	.1083000 *	.0005201	<.001	.106559
	30	.0153200 *	.0005201	<.001	.013579
	35	.0047200 *	.0005201	<.001	.002979
	45	-.0115800 *	.0005201	<.001	-.013321
	50	-.0135400 *	.0005201	<.001	-.015281
45	5	.2819200 *	.0005201	<.001	.280179
	10	.2640800 *	.0005201	<.001	.262339
	15	.2398600 *	.0005201	<.001	.238119
	20	.2019400 *	.0005201	<.001	.200199
	25	.1198800 *	.0005201	<.001	.118139
	30	.0269000 *	.0005201	<.001	.025159
	35	.0163000 *	.0005201	<.001	.014559
	40	.0115800 *	.0005201	<.001	.009839
	50	-.0019600 *	.0005201	.017	-.003701
50	5	.2838800 *	.0005201	<.001	.282139
	10	.2660400 *	.0005201	<.001	.264299

Multiple Comparisons

Dependent Variable: Difference
Tukey HSD

(I) Temperature	(J) Temperature	95% … Upper Bound
	25	.094721
	35	-.008859
	40	-.013579
	45	-.025159
	50	-.027119
35	5	.267361
	10	.249521
	15	.225301
	20	.187381
	25	.105321
	30	.012341
	40	-.002979
	45	-.014559
	50	-.016519
40	5	.272081
	10	.254241
	15	.230021
	20	.192101
	25	.110041
	30	.017061
	35	.006461
	45	-.009839
	50	-.011799
45	5	.283661
	10	.265821
	15	.241601
	20	.203681
	25	.121621
	30	.028641
	35	.018041
	40	.013321
	50	-.000219
50	5	.285621
	10	.267781

Multiple Comparisons

Dependent Variable: Difference
Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% … Lower Bound
	15	.2418200 *	.0005201	<.001	.240079
	20	.2039000 *	.0005201	<.001	.202159
	25	.1218400 *	.0005201	<.001	.120099
	30	.0288600 *	.0005201	<.001	.027119
	35	.0182600 *	.0005201	<.001	.016519
	40	.0135400 *	.0005201	<.001	.011799
	45	.0019600 *	.0005201	.017	.000219

Multiple Comparisons

Dependent Variable: Difference
Tukey HSD

(I) Temperature	(J) Temperature	95% … Upper Bound
	15	.243561
	20	.205641
	25	.123581
	30	.030601
	35	.020001
	40	.015281
	45	.003701

*. 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	-.293660					
10	5		-.275820				
15	5			-.251600			
20	5				-.213680		
25	5					-.131620	
30	5						-.038640
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	-.028040			
40		-.023320		
45			-.011740	
50				-.009780
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.