

## Oneway

### Notes

Output Created		28-FEB-2022 20:46:46
Comments		
Input	Data	/Users/benjamin/Desktop/AP Research/21-22-PAS-AP-Research/Experiment 1/E1-Raw/E1-CAM.csv
	Active Dataset	DataSet5
	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

[DataSet5]

### Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Difference	Based on Mean	1.375	9	40	.232
	Based on Median	.973	9	40	.477
	Based on Median and with adjusted df	.973	9	27.185	.483
	Based on trimmed mean	1.396	9	40	.223

## ANOVA

Difference

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.002	9	.000	1299.092	<.001
Within Groups	.000	40	.000		
Total	.002	49			

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

			95% Confidence Interval	
Point Estimate			Lower	Upper
Difference	Eta-squared	.997	.993	.997
	Epsilon-squared	.996	.991	.996
	Omega-squared Fixed-effect	.996	.991	.996
	Omega-squared Random-effect	.963	.927	.969

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	.0009600 *	.0002560	.018	.000103
	15	.0017400 *	.0002560	<.001	.000883
	20	.0030400 *	.0002560	<.001	.002183
	25	.0098600 *	.0002560	<.001	.009003
	30	.0118000 *	.0002560	<.001	.010943
	35	.0137800 *	.0002560	<.001	.012923
	40	.0149400 *	.0002560	<.001	.014083
	45	.0152000 *	.0002560	<.001	.014343
	50	.0157000 *	.0002560	<.001	.014843
10	5	-.0009600 *	.0002560	.018	-.001817
	15	.0007800	.0002560	.101	-.000077
	20	.0020800 *	.0002560	<.001	.001223
	25	.0089000 *	.0002560	<.001	.008043
	30	.0108400 *	.0002560	<.001	.009983
	35	.0128200 *	.0002560	<.001	.011963

## Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
5	10	.001817
	15	.002597
	20	.003897
	25	.010717
	30	.012657
	35	.014637
	40	.015797
	45	.016057
	50	.016557
10	5	-.000103
	15	.001637
	20	.002937
	25	.009757
	30	.011697
	35	.013677

## Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
15	40	.0139800 *	.0002560	<.001	.013123
	45	.0142400 *	.0002560	<.001	.013383
	50	.0147400 *	.0002560	<.001	.013883
	5	-.0017400 *	.0002560	<.001	-.002597
	10	-.0007800	.0002560	.101	-.001637
	20	.0013000 *	.0002560	<.001	.000443
	25	.0081200 *	.0002560	<.001	.007263
	30	.0100600 *	.0002560	<.001	.009203
	35	.0120400 *	.0002560	<.001	.011183
	40	.0132000 *	.0002560	<.001	.012343
20	45	.0134600 *	.0002560	<.001	.012603
	50	.0139600 *	.0002560	<.001	.013103
	5	-.0030400 *	.0002560	<.001	-.003897
	10	-.0020800 *	.0002560	<.001	-.002937
	15	-.0013000 *	.0002560	<.001	-.002157
	25	.0068200 *	.0002560	<.001	.005963
	30	.0087600 *	.0002560	<.001	.007903
	35	.0107400 *	.0002560	<.001	.009883
	40	.0119000 *	.0002560	<.001	.011043
	45	.0121600 *	.0002560	<.001	.011303
25	50	.0126600 *	.0002560	<.001	.011803
	5	-.0098600 *	.0002560	<.001	-.010717
	10	-.0089000 *	.0002560	<.001	-.009757
	15	-.0081200 *	.0002560	<.001	-.008977
	20	-.0068200 *	.0002560	<.001	-.007677
	30	.0019400 *	.0002560	<.001	.001083
	35	.0039200 *	.0002560	<.001	.003063
	40	.0050800 *	.0002560	<.001	.004223
	45	.0053400 *	.0002560	<.001	.004483
	50	.0058400 *	.0002560	<.001	.004983
30	5	-.0118000 *	.0002560	<.001	-.012657
	10	-.0108400 *	.0002560	<.001	-.011697
	15	-.0100600 *	.0002560	<.001	-.010917
	20	-.0087600 *	.0002560	<.001	-.009617
	25	-.0019400 *	.0002560	<.001	-.002797

## Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
15	40	.014837
	45	.015097
	50	.015597
	5	-.000883
	10	.000077
	20	.002157
	25	.008977
	30	.010917
	35	.012897
	40	.014057
	45	.014317
	50	.014817
20	5	-.002183
	10	-.001223
	15	-.000443
	25	.007677
	30	.009617
	35	.011597
	40	.012757
	45	.013017
	50	.013517
25	5	-.009003
	10	-.008043
	15	-.007263
	20	-.005963
	30	.002797
	35	.004777
	40	.005937
	45	.006197
	50	.006697
30	5	-.010943
	10	-.009983
	15	-.009203
	20	-.007903
	25	-.001083

## Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

		Mean			95% ...
(I) Temperature	(J) Temperature	Difference (I-J)	Std. Error	Sig.	Lower Bound
	35	.0019800 *	.0002560	<.001	.001123
	40	.0031400 *	.0002560	<.001	.002283
	45	.0034000 *	.0002560	<.001	.002543
	50	.0039000 *	.0002560	<.001	.003043
35	5	-.0137800 *	.0002560	<.001	-.014637
	10	-.0128200 *	.0002560	<.001	-.013677
	15	-.0120400 *	.0002560	<.001	-.012897
	20	-.0107400 *	.0002560	<.001	-.011597
	25	-.0039200 *	.0002560	<.001	-.004777
	30	-.0019800 *	.0002560	<.001	-.002837
	40	.0011600 *	.0002560	.002	.000303
	45	.0014200 *	.0002560	<.001	.000563
	50	.0019200 *	.0002560	<.001	.001063
40	5	-.0149400 *	.0002560	<.001	-.015797
	10	-.0139800 *	.0002560	<.001	-.014837
	15	-.0132000 *	.0002560	<.001	-.014057
	20	-.0119000 *	.0002560	<.001	-.012757
	25	-.0050800 *	.0002560	<.001	-.005937
	30	-.0031400 *	.0002560	<.001	-.003997
	35	-.0011600 *	.0002560	.002	-.002017
	45	.0002600	.0002560	.990	-.000597
	50	.0007600	.0002560	.120	-.000097
45	5	-.0152000 *	.0002560	<.001	-.016057
	10	-.0142400 *	.0002560	<.001	-.015097
	15	-.0134600 *	.0002560	<.001	-.014317
	20	-.0121600 *	.0002560	<.001	-.013017
	25	-.0053400 *	.0002560	<.001	-.006197
	30	-.0034000 *	.0002560	<.001	-.004257
	35	-.0014200 *	.0002560	<.001	-.002277
	40	-.0002600	.0002560	.990	-.001117
	50	.0005000	.0002560	.634	-.000357
50	5	-.0157000 *	.0002560	<.001	-.016557
	10	-.0147400 *	.0002560	<.001	-.015597
	15	-.0139600 *	.0002560	<.001	-.014817
	20	-.0126600 *	.0002560	<.001	-.013517

## Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

95% ...

(I) Temperature	(J) Temperature	Upper Bound
	35	.002837
	40	.003997
	45	.004257
	50	.004757
35	5	-.012923
	10	-.011963
	15	-.011183
	20	-.009883
	25	-.003063
	30	-.001123
	40	.002017
	45	.002277
	50	.002777
40	5	-.014083
	10	-.013123
	15	-.012343
	20	-.011043
	25	-.004223
	30	-.002283
	35	-.000303
	45	.001117
	50	.001617
45	5	-.014343
	10	-.013383
	15	-.012603
	20	-.011303
	25	-.004483
	30	-.002543
	35	-.000563
	40	.000597
	50	.001357
50	5	-.014843
	10	-.013883
	15	-.013103
	20	-.011803

### Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Mean Difference (I-J)	Std. Error	Sig.	95% ... Lower Bound
	25	-.0058400 *	.0002560	<.001	-.006697
	30	-.0039000 *	.0002560	<.001	-.004757
	35	-.0019200 *	.0002560	<.001	-.002777
	40	-.0007600	.0002560	.120	-.001617
	45	-.0005000	.0002560	.634	-.001357

### Multiple Comparisons

Dependent Variable: Difference

Tukey HSD

(I) Temperature	(J) Temperature	Upper Bound
	25	-.004983
	30	-.003043
	35	-.001063
	40	.000097
	45	.000357

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

### Homogeneous Subsets

#### Difference

Tukey HSD<sup>a</sup>

Temperature	N	Subset for alpha = 0.05					
		1	2	3	4	5	6
50	5	-.020880					
45	5	-.020380					
40	5	-.020120					
35	5		-.018960				
30	5			-.016980			
25	5				-.015040		
20	5					-.008220	
15	5						-.006920
10	5						-.006140
5	5						
Sig.		.120	1.000	1.000	1.000	1.000	.101



## Difference

Tukey HSD<sup>a</sup>

Temperature	Subset for .. 7
50	
45	
40	
35	
30	
25	
20	
15	
10	
5	-.005180
Sig.	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.