GET

FILE='/Users/PauloGarcia/Desktop/blendingbox/Analysis/First Study/SPSS Files /datasets/q16 anal lab.sav'.

DATASET NAME DataSet7 WINDOW=FRONT.

EXAMINE VARIABLES-distance\_expectedC1C2distance\_HSV distance\_LCh distance\_CMY K distance\_RGB distance\_Lab

/PLOT BOXPLOT STEMLEAF NPPLOT

/COMPARE GROUPS

/STATISTICS DESCRIPTIVES

/CINTERVAL 95

/MISSING LISTWISE

/NOTOTAL.

# **Explore**

#### **Notes**

Output Created		21-SEP-2016 17:48:58
Comments		
Input	Data	/Users/PauloGarcia/Des ktop/blendingbox/Anal ysis/First Study/SPSS Files/datasets/q16_anal _lab.sav
	<b>Active Dataset</b>	DataSet7
	Filter	<none></none>
	Weight	<none></none>
	Split File	<none></none>
	N of Rows in Working Data File	15
Missing Value Handling	Definition of Missing	User-defined missing values for dependent variables are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any dependent variable or factor used.

#### Notes

Syntax		EXAMINE VARIABLES=distance_ex pectedC1C2 distance_HSV distance_LCh distance_CMYK distance_RGB distance_Lab /PLOT BOXPLOT STEMLEAF NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL.
Resources	Processor Time	00:00:03,01
	Elapsed Time	00:00:03,00

 $\label{lem:condition} $$[DataSet7] / Users/PauloGarcia/Desktop/blendingbox/Analysis/First Study/SPSS Files/datasets/q16_anal_lab.sav$ 

## **Case Processing Summary**

	Cases					
	Va	alid	Mis	sing	To	otal
	N	Percent	N	Percent	N	Percent
distance_expected C1C2	15	100,0%	0	0,0%	15	100,0%
distance_HSV	15	100,0%	0	0,0%	15	100,0%
distance_LCh	15	100,0%	0	0,0%	15	100,0%
distance_CMYK	15	100,0%	0	0,0%	15	100,0%
distance_RGB	15	100,0%	0	0,0%	15	100,0%
distance_Lab	15	100,0%	0	0,0%	15	100,0%

# Descriptives

			Statistic	Std. Error
distance_expected	Mean		.6780	.05681
C1C2	95% Confidence	Lower Bound	.5562	
	Interval for Mean	Upper Bound	.7998	
•	5% Trimmed Mean		.6828	
•	Median		.7000	
•	Variance		,048	
•	Std. Deviation		.22001	
•	Minimum		.30	
•	Maximum		.97	
•	Range		.67	
•	Interquartile Range		.38	
•	Skewness		-,634	,580
•	Kurtosis		-,820	1,121
distance_HSV	Mean		.2087	.02679
•	95% Confidence	Lower Bound	.1512	
	Interval for Mean	Upper Bound	.2661	
•	5% Trimmed Mean		.2096	
•	Median		.2300	
•	Variance		,011	
•	Std. Deviation		.10378	
•	Minimum		.01	
•	Maximum		.39	
•	Range		.38	
•	Interquartile Range		.12	
•	Skewness		-,327	,580
•	Kurtosis		-,296	1,121
distance_LCh	Mean		.2187	.03142
•	95% Confidence	Lower Bound	.1513	
	Interval for Mean	Upper Bound	.2861	
•	5% Trimmed Mean		.2152	
•	Median		.2500	
•	Variance		,015	
•	Std. Deviation		.12171	
•	Minimum		.07	
•	Maximum		.43	
•	Range		.36	
•	Interquartile Range		.23	
•	Skewness		,292	,580
•	Kurtosis		-1,227	1,121
distance_CMYK	Mean		.1033	.01319
	95% Confidence	Lower Bound	.0750	
	Interval for Mean	Upper Bound	.1316	
•	5% Trimmed Mean	- · · -	.1026	
•	Median		.1000	

# Descriptives

			Statistic	Std. Error
	Variance		,003	
	Std. Deviation		.05108	
	Minimum		.03	
	Maximum		.19	
	Range		.16	
	Interquartile Range		.09	
	Skewness		,163	,580
	Kurtosis		-1,192	1,121
distance_RGB	Mean		.1593	.01763
	95% Confidence	Lower Bound	.1215	
	Interval for Mean	<b>Upper Bound</b>	.1972	
	5% Trimmed Mean		.1559	
	Median		.1700	
	Variance		,005	
	Std. Deviation		.06829	
	Minimum		.05	
	Maximum		.33	
	Range		.28	
	Interquartile Range		.08	
	Skewness		,715	,580
	Kurtosis		1,961	1,121
distance_Lab	Mean		.1240	.02033
	95% Confidence	Lower Bound	.0804	
	Interval for Mean	<b>Upper Bound</b>	.1676	
	5% Trimmed Mean		.1189	
	Median		.1100	
	Variance		,006	
	Std. Deviation		.07872	
	Minimum		.02	
	Maximum		.32	
	Range		.30	
	Interquartile Range		.11	
	Skewness		,964	,580
	Kurtosis		1,382	1,121

## **Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
distance_expected C1C2	,161	15	,200 <sup>*</sup>	,910	15	,136
distance_HSV	,123	15	,200 <sup>*</sup>	,973	15	,900
distance_LCh	,180	15	,200 <sup>*</sup>	,919	15	,189
distance_CMYK	,126	15	,200 <sup>*</sup>	,952	15	,562
distance_RGB	,193	15	,136	,930	15	,270
distance_Lab	,136	15	,200 <sup>*</sup>	,933	15	,299

- \*. This is a lower bound of the true significance.
- a. Lilliefors Significance Correction

NPAR TESTS

 $/ {\tt FRIEDMAN\!=} distance\_expected {\tt C1C2} distance\_HSV \ distance\_LCh \ distance\_CMYK \ distance\_RGB \ distance\_Lab$ 

/STATISTICS DESCRIPTIVES QUARTILES

/MISSING LISTWISE.

# **NPar Tests**

## Notes

Output Created		21-SEP-2016 17:49:44
Comments		
Input	Data	/Users/PauloGarcia/Des ktop/blendingbox/Anal ysis/First Study/SPSS Files/datasets/q16_anal _lab.sav
	<b>Active Dataset</b>	DataSet7
	Filter	<none></none>
	Weight	<none></none>
	Split File	<none></none>
	N of Rows in Working Data File	15
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for all tests are based on cases with no missing data for any variables used.

## Notes

Syntax		NPAR TESTS
		/FRIEDMAN=distance_e xpectedC1C2 distance_HSV distance_LCh distance_CMYK distance_RGB distance_Lab /STATISTICS DESCRIPTIVES QUARTILES /MISSING LISTWISE.
Resources	Processor Time Elapsed Time	00:00:00,00 00:00:00,00
	Number of Cases Allowed <sup>a</sup>	71493

a. Based on availability of workspace memory.

# **Descriptive Statistics**

						Percentile
	N	Mean	Std. Deviation	Minimum	Maximum	25th
distance_expected C1C2	15	.6780	.22001	.30	.97	.4800
distance_HSV	15	.2087	.10378	.01	.39	.1500
distance_LCh	15	.2187	.12171	.07	.43	.0900
distance_CMYK	15	.1033	.05108	.03	.19	.0600
distance_RGB	15	.1593	.06829	.05	.33	.1100
distance_Lab	15	.1240	.07872	.02	.32	.0700

## **Descriptive Statistics**

	Percentiles		
	50th (Median)	75th	
distance_expected C1C2	.7000	.8600	
distance_HSV	.2300	.2700	
distance_LCh	.2500	.3200	
distance_CMYK	.1000	.1500	
distance_RGB	.1700	.1900	
distance_Lab	.1100	.1800	

Friedman Test

#### **Ranks**

	Mean Rank
distance_expected C1C2	5,93
distance_HSV	3,63
distance_LCh	3,73
distance_CMYK	2,03
distance_RGB	3,43
distance_Lab	2,23

## Test Statistics<sup>a</sup>

N	15
Chi-Square	42,202
df	5
Asymp. Sig.	,000

a. Friedman Test

#### NPAR TESTS

/WILCOXON=distance\_HSV distance\_HSV distance\_HSV distance\_LCh d istance\_LCh distance\_LCh distance\_CMYK distance\_CMYK distance\_RGB WITH distance\_LCh distance\_CMYK distance\_RGB distance\_Lab distance\_CMYK distance\_RGB distance\_Lab distance\_Lab distance\_RGB distance\_Lab distance\_Lab (PAIRED)

/STATISTICS DESCRIPTIVES QUARTILES /MISSING ANALYSIS.

## **NPar Tests**

## Notes

Output Created		21-SEP-2016 17:50:31
Comments		
Input	Data	/Users/PauloGarcia/Des ktop/blendingbox/Anal ysis/First Study/SPSS Files/datasets/q16_anal _lab.sav
	<b>Active Dataset</b>	DataSet7
	Filter	<none></none>
	Weight	<none></none>
	Split File	<none></none>
	N of Rows in Working Data File	15
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
Syntax		NPAR TESTS
		/WILCOXON=distance_H SV distance_HSV distance_HSV distance_HSV distance_LCh distance_LCh distance_LCh distance_CMYK distance_CMYK distance_CMYK distance_CMYK distance_LCh distance_LCh distance_LCh distance_LCh distance_LCB distance_LBb distance_LAb distance_LAb distance_RGB distance_LAb dis
Resources	Processor Time	00:00:00,01
1.00001000	Elapsed Time	00:00:00,01
	Number of Cases Allowed <sup>a</sup>	78643

a. Based on availability of workspace memory.

## **Descriptive Statistics**

						Percentile
	N	Mean	Std. Deviation	Minimum	Maximum	25th
distance_HSV	15	.2087	.10378	.01	.39	.1500
distance_LCh	15	.2187	.12171	.07	.43	.0900
distance_CMYK	15	.1033	.05108	.03	.19	.0600
distance_RGB	15	.1593	.06829	.05	.33	.1100
distance_Lab	15	.1240	.07872	.02	.32	.0700

# **Descriptive Statistics**

	Percentiles			
	50th (Median)	75th		
distance_HSV	.2300	.2700		
distance_LCh	.2500	.3200		
distance_CMYK	.1000	.1500		
distance_RGB	.1700	.1900		
distance_Lab	.1100	.1800		

# **Wilcoxon Signed Ranks Test**

#### Ranks

		N	Mean Rank	Sum of Ranks
distance_LCh -	Negative Ranks	6 <sup>a</sup>	8,42	50,50
distance_HSV	Positive Ranks	9 <sup>b</sup>	7,72	69,50
	Ties	0 c		
	Total	15		
distance_CMYK -	Negative Ranks	11 <sup>d</sup>	9,50	104,50
distance_HSV	Positive Ranks	4 <sup>e</sup>	3,88	15,50
	Ties	0 <sup>f</sup>		
	Total	15		
distance_RGB -	Negative Ranks	11 <sup>9</sup>	7,68	84,50
distance_HSV	Positive Ranks	4 <sup>h</sup>	8,88	35,50
	Ties	0 <sup>i</sup>		
	Total	15		
distance_Lab - distance_HSV	Negative Ranks	1 1 <sup>j</sup>	8,14	89,50
	Positive Ranks	3 <sup>k</sup>	5,17	15,50
	Ties	1 <sup>1</sup>		
	Total	15		
distance_CMYK -	Negative Ranks	10 <sup>m</sup>	10,35	103,50
distance_LCh	Positive Ranks	5 <sup>n</sup>	3,30	16,50
	Ties	0°		
	Total	15		
distance_RGB -	Negative Ranks	10 <sup>p</sup>	9,05	90,50
distance_LCh	Positive Ranks	5 <sup>q</sup>	5,90	29,50

Ranks

		N	Mean Rank	Sum of Ranks
	Ties	0 <sup>r</sup>		
	Total	15		
distance_Lab -	Negative Ranks	11 <sup>s</sup>	9,00	99,00
distance_LCh	<b>Positive Ranks</b>	4 <sup>t</sup>	5,25	21,00
	Ties	0 <sup>u</sup>		
	Total	15		
distance_RGB -	Negative Ranks	0 <sup>v</sup>	,00	,00
distance_CMYK	<b>Positive Ranks</b>	15 <sup>w</sup>	8,00	120,00
	Ties	0 <sup>x</sup>		
	Total	15		
distance_Lab -	Negative Ranks	5 <sup>y</sup>	4,90	24,50
distance_CMYK	<b>Positive Ranks</b>	7 <sup>z</sup>	7,64	53,50
	Ties	3 <sup>aa</sup>		
	Total	15		
distance_Lab -	Negative Ranks	1 2 <sup>ab</sup>	8,21	98,50
distance_RGB	Positive Ranks	2 <sup>ac</sup>	3,25	6,50
	Ties	1 <sup>ad</sup>		
	Total	15		

a. distance\_LCh < distance\_HSV

b. distance\_LCh > distance\_HSV

c. distance\_LCh = distance\_HSV

- d. distance\_CMYK < distance\_HSV
- e. distance\_CMYK > distance\_HSV
- f. distance CMYK = distance HSV
- g. distance\_RGB < distance\_HSV
- h. distance RGB > distance HSV
- i. distance\_RGB = distance\_HSV
- j. distance\_Lab < distance\_HSV
- k. distance\_Lab > distance\_HSV
- I. distance\_Lab = distance\_HSV
- m. distance CMYK < distance LCh
- n. distance\_CMYK > distance\_LCh
- o. distance\_CMYK = distance\_LCh
- p. distance\_RGB < distance\_LCh
- q. distance\_RGB > distance\_LCh
- r. distance\_RGB = distance\_LCh
- s. distance\_Lab < distance\_LCh
- t. distance\_Lab > distance\_LCh
- u. distance\_Lab = distance\_LCh
- v. distance\_RGB < distance\_CMYK
- w. distance\_RGB > distance\_CMYK
- x. distance\_RGB = distance\_CMYK
- y. distance\_Lab < distance\_CMYK
- z. distance\_Lab > distance\_CMYK
- aa. distance\_Lab = distance\_CMYK
- ab. distance\_Lab < distance\_RGB
- ac. distance\_Lab > distance\_RGB
- ad. distance\_Lab = distance\_RGB

# Test Statistics<sup>a</sup>

	distance_LCh - distance_HSV	distance_CMY K - distance_HSV	distance_RGB - distance_HSV	distance_Lab - distance_HSV	distance_CMY K - distance_LCh
Z	-,540 <sup>b</sup>	-2,529 <sup>c</sup>	-1,392 <sup>c</sup>	-2,324 <sup>c</sup>	-2,472 <sup>c</sup>
Asymp. Sig. (2-tailed)	,589	,011	,164	,020	,013

# Test Statistics<sup>a</sup>

	distance_RGB - distance_LCh	distance_Lab - distance_LCh	distance_RGB - distance_CMY K	distance_Lab - distance_CMY K	distance_Lab - distance_RGB
Z	-1,736 <sup>c</sup>	-2,217 <sup>c</sup>	-3,416 <sup>b</sup>	-1,144 <sup>b</sup>	-2,899 <sup>c</sup>
Asymp. Sig. (2- tailed)	,083	,027	,001	,253	,004

- a. Wilcoxon Signed Ranks Test
- b. Based on negative ranks.
- c. Based on positive ranks.