

Your temporary usage period for IBM SPSS Statistics will expire in 11 days.

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GET

FILE='C:\Users\Bahador\Desktop\Analysis\Correlation\Correlation_Ranking.sav'

.

DATASET NAME DataSet1 WINDOW=FRONT.

GLM Bar_Num_Num_Car Bar_Num_Num_Movie Bar_Ord_Num_Car Bar_Ord_Num_Movie Line_Num_Num_Car
um_Num_Car

Line_Num_Num_Movie Line_Ord_Num_Car Line_Ord_Num_Movie Pie_Num_Num_Car Pie
_Num_Num_Movie

Pie_Ord_Num_Car Pie_Ord_Num_Movie Scatter_Num_Num_Car Scatter_Num_Num_Movie
e Scatter_Ord_Num_Car

Scatter_Ord_Num_Movie Table_Num_Num_Car Table_Num_Num_Movie Table_Ord_Num_
Car Table_Ord_Num_Movie

/WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 2 Polynomial Dataset
2 Polynomial

/METHOD=SSTYPE(3)

/EMMEANS=TABLES(OVERALL)

/EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)

/EMMEANS=TABLES(DataAttributeTypes) COMPARE ADJ(BONFERRONI)

/EMMEANS=TABLES(Visualization*DataAttributeTypes)

/PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY

/CRITERIA=ALPHA(.05)

/WSDESIGN=Visualization DataAttributeTypes Dataset Visualization*DataAttributeTypes

Visualization*Dataset DataAttributeTypes*Dataset Visualization*DataAttributeTypes*Dataset.

General Linear Model

Notes

Output Created		06-SEP-2016 13:13:47
Comments		
Input	Data	C: \Users\Bahador\Desktop\A nalysis\Correlation\Correl ation_Ranking.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Notes

Syntax

```

GLM Bar_Num_Num_Car
Bar_Num_Num_Movie
Bar_Ord_Num_Car
Bar_Ord_Num_Movie
Line_Num_Num_Car
Line_Num_Num_Movie
Line_Ord_Num_Car
Line_Ord_Num_Movie
Pie_Num_Num_Car
Pie_Num_Num_Movie
Pie_Ord_Num_Car
Pie_Ord_Num_Movie
Scatter_Num_Num_Car
Scatter_Num_Num_Movie
Scatter_Ord_Num_Car

Scatter_Ord_Num_Movie
Table_Num_Num_Car
Table_Num_Num_Movie
Table_Ord_Num_Car
Table_Ord_Num_Movie

/WSFACTOR=Visualization 5 Polynomial
DataAttributeTypes 2
Polynomial Dataset 2
Polynomial
/METHOD=SSTYPE(3)
/EMMEANS=TABLES
(OVERALL)
/EMMEANS=TABLES
(Visualization) COMPARE
ADJ(BONFERRONI)
/EMMEANS=TABLES
(DataAttributeTypes)
COMPARE ADJ
(BONFERRONI)
/EMMEANS=TABLES
(Visualization*DataAttributeTypes)
/PRINT=DESCRIPTIVE
ETASQ OPOWER
HOMOGENEITY
/CRITERIA=ALPHA(.05)

/WSDESIGN=Visualization
DataAttributeTypes
Dataset
Visualization*DataAttributeTypes
Visualization*Dataset
DataAttributeTypes*Dataset
Visualization*DataAttributeTypes*Dataset.

```

Notes

Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

[DataSet1] C:\Users\Bahador\Desktop\Analysis\Correlation\Correlation_Ranking.sav

Warnings

The HOMOGENEITY specification in the PRINT subcommand will be ignored because there are no between-subjects factors.

Within-Subjects Factors

Measure: MEASURE_1

Visualization	DataAttributeTypes	Dataset	Dependent Variable
1	1	1	Bar_Num_Num_Car
		2	Bar_Num_Num_Movie
	2	1	Bar_Ord_Num_Car
		2	Bar_Ord_Num_Movie
2	1	1	Line_Num_Num_Car
		2	Line_Num_Num_Movie
	2	1	Line_Ord_Num_Car
		2	Line_Ord_Num_Movie
3	1	1	Pie_Num_Num_Car
		2	Pie_Num_Num_Movie
	2	1	Pie_Ord_Num_Car
		2	Pie_Ord_Num_Movie

Within-Subjects Factors

Measure: MEASURE_1

Visualization	DataAttributeTypes	Dataset	Dependent Variable
4	1	1	Scatter_Num_Num_Car
		2	Scatter_Num_Num_Movie
	2	1	Scatter_Ord_Num_Car
		2	Scatter_Ord_Num_Movie
5	1	1	Table_Num_Num_Car
		2	Table_Num_Num_Movie
	2	1	Table_Ord_Num_Car
		2	Table_Ord_Num_Movie

Descriptive Statistics

	Mean	Std. Deviation	N
Bar_Num_Num_Car	1.6111	.84984	18
Bar_Num_Num_Movie	1.7778	.80845	18
Bar_Ord_Num_Car	2.2222	1.16597	18
Bar_Ord_Num_Movie	2.2222	1.30859	18
Line_Num_Num_Car	2.3333	1.13759	18
Line_Num_Num_Movie	2.2778	1.07406	18
Line_Ord_Num_Car	2.1111	1.02262	18
Line_Ord_Num_Movie	2.0556	1.16175	18
Pie_Num_Num_Car	4.2778	1.07406	18
Pie_Num_Num_Movie	4.1667	1.33945	18
Pie_Ord_Num_Car	4.2778	1.17851	18
Pie_Ord_Num_Movie	4.1111	1.13183	18
Scatter_Num_Num_Car	2.9444	1.05564	18
Scatter_Num_Num_Movie	3.0556	1.21133	18
Scatter_Ord_Num_Car	2.8333	1.09813	18

Descriptive Statistics

	Mean	Std. Deviation	N
Scatter_Ord_Num_Movie	2.7222	1.01782	18
Table_Num_Num_Car	3.8333	1.15045	18
Table_Num_Num_Movie	3.7222	1.17851	18
Table_Ord_Num_Car	3.5556	1.42343	18
Table_Ord_Num_Movie	3.8889	1.18266	18

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.855	20.671 ^b	4.000	14.000
	Wilks' Lambda	.145	20.671 ^b	4.000	14.000
	Hotelling's Trace	5.906	20.671 ^b	4.000	14.000
	Roy's Largest Root	5.906	20.671 ^b	4.000	14.000
DataAttributeTypes	Pillai's Trace	.	. ^b	.	.
	Wilks' Lambda	.	. ^b	.	.
	Hotelling's Trace	.	. ^b	.	.
	Roy's Largest Root	.	. ^b	.	.
Dataset	Pillai's Trace	.	. ^b	.	.
	Wilks' Lambda	.	. ^b	.	.
	Hotelling's Trace	.	. ^b	.	.
	Roy's Largest Root	.	. ^b	.	.
Visualization * DataAttributeTypes	Pillai's Trace	.244	1.127 ^b	4.000	14.000
	Wilks' Lambda	.756	1.127 ^b	4.000	14.000
	Hotelling's Trace	.322	1.127 ^b	4.000	14.000
	Roy's Largest Root	.322	1.127 ^b	4.000	14.000
Visualization * Dataset	Pillai's Trace	.060	.223 ^b	4.000	14.000
	Wilks' Lambda	.940	.223 ^b	4.000	14.000
	Hotelling's Trace	.064	.223 ^b	4.000	14.000
	Roy's Largest Root	.064	.223 ^b	4.000	14.000
DataAttributeTypes * Dataset	Pillai's Trace	.	. ^b	.	.
	Wilks' Lambda	.	. ^b	.	.
	Hotelling's Trace	.	. ^b	.	.
	Roy's Largest Root	.	. ^b	.	.

Multivariate Tests^a

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.000	.855	82.682
	Wilks' Lambda	.000	.855	82.682
	Hotelling's Trace	.000	.855	82.682
	Roy's Largest Root	.000	.855	82.682
DataAttributeTypes	Pillai's Trace	.	.	.
	Wilks' Lambda	.	.	.
	Hotelling's Trace	.	.	.
	Roy's Largest Root	.	.	.
Dataset	Pillai's Trace	.	.	.
	Wilks' Lambda	.	.	.
	Hotelling's Trace	.	.	.
	Roy's Largest Root	.	.	.
Visualization * DataAttributeTypes	Pillai's Trace	.383	.244	4.508
	Wilks' Lambda	.383	.244	4.508
	Hotelling's Trace	.383	.244	4.508
	Roy's Largest Root	.383	.244	4.508
Visualization * Dataset	Pillai's Trace	.921	.060	.894
	Wilks' Lambda	.921	.060	.894
	Hotelling's Trace	.921	.060	.894
	Roy's Largest Root	.921	.060	.894
DataAttributeTypes * Dataset	Pillai's Trace	.	.	.
	Wilks' Lambda	.	.	.
	Hotelling's Trace	.	.	.
	Roy's Largest Root	.	.	.

Multivariate Tests^a

Effect		Observed Power ^c
Visualization	Pillai's Trace	1.000
	Wilks' Lambda	1.000
	Hotelling's Trace	1.000
	Roy's Largest Root	1.000
DataAttributeTypes	Pillai's Trace	.
	Wilks' Lambda	.
	Hotelling's Trace	.
	Roy's Largest Root	.
Dataset	Pillai's Trace	.
	Wilks' Lambda	.
	Hotelling's Trace	.
	Roy's Largest Root	.
Visualization * DataAttributeTypes	Pillai's Trace	.265
	Wilks' Lambda	.265
	Hotelling's Trace	.265
	Roy's Largest Root	.265
Visualization * Dataset	Pillai's Trace	.085
	Wilks' Lambda	.085
	Hotelling's Trace	.085
	Roy's Largest Root	.085
DataAttributeTypes * Dataset	Pillai's Trace	.
	Wilks' Lambda	.
	Hotelling's Trace	.
	Roy's Largest Root	.

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.306	1.543 ^b	4.000	14.000
	Wilks' Lambda	.694	1.543 ^b	4.000	14.000
	Hotelling's Trace	.441	1.543 ^b	4.000	14.000
	Roy's Largest Root	.441	1.543 ^b	4.000	14.000

Multivariate Tests^a

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.244	.306	6.170
	Wilks' Lambda	.244	.306	6.170
	Hotelling's Trace	.244	.306	6.170
	Roy's Largest Root	.244	.306	6.170

Multivariate Tests^a

Effect		Observed Power ^c
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.357
	Wilks' Lambda	.357
	Hotelling's Trace	.357
	Roy's Largest Root	.357

- a. Design: Intercept
 Within Subjects Design: Visualization + DataAttributeTypes + Dataset + Visualization *
 DataAttributeTypes + Visualization * Dataset + DataAttributeTypes * Dataset + Visualization * ...
- b. Exact statistic
- c. Computed using alpha = .05

Mauchly's Test of Sphericity^a

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon ^b Greenhouse-Geisser
Visualization	.415	13.560	9	.141	.734
DataAttributeTypes	.	.	0	.	.
Dataset	.	.	0	.	.
Visualization * DataAttributeTypes	.230	22.659	9	.007	.612
Visualization * Dataset	.226	22.951	9	.007	.650
DataAttributeTypes * Dataset	.	.	0	.	.
Visualization * DataAttributeTypes * Dataset	.535	9.641	9	.383	.735

Mauchly's Test of Sphericity^a

Measure: MEASURE_1

Within Subjects Effect	Epsilon ^b	
	Huynh-Feldt	Lower-bound
Visualization	.904	.250
DataAttributeTypes	.	1.000
Dataset	.	1.000
Visualization * DataAttributeTypes	.722	.250
Visualization * Dataset	.778	.250
DataAttributeTypes * Dataset	.	1.000
Visualization * DataAttributeTypes * Dataset	.905	.250

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept

Within Subjects Design: Visualization + DataAttributeTypes + Dataset + Visualization *

DataAttributeTypes + Visualization * Dataset + DataAttributeTypes * Dataset + Visualization * ...

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
Visualization	Sphericity Assumed	271.361	4	67.840	13.663
	Greenhouse-Geisser	271.361	2.937	92.396	13.663
	Huynh-Feldt	271.361	3.617	75.026	13.663
	Lower-bound	271.361	1.000	271.361	13.663
Error(Visualization)	Sphericity Assumed	337.639	68	4.965	
	Greenhouse-Geisser	337.639	49.928	6.763	
	Huynh-Feldt	337.639	61.487	5.491	
	Lower-bound	337.639	17.000	19.861	
DataAttributeTypes	Sphericity Assumed	.000	1	.000	.
	Greenhouse-Geisser	.000	.	.	.
	Huynh-Feldt	.000	.	.	.
	Lower-bound	.000	1.000	.000	.
Error(DataAttributeTypes)	Sphericity Assumed	.000	17	.000	
	Greenhouse-Geisser	.000	.	.	
	Huynh-Feldt	.000	.	.	
	Lower-bound	.000	17.000	.000	
Dataset	Sphericity Assumed	.000	1	.000	.
	Greenhouse-Geisser	.000	.	.	.
	Huynh-Feldt	.000	.	.	.
	Lower-bound	.000	1.000	.000	.
Error(Dataset)	Sphericity Assumed	.000	17	.000	
	Greenhouse-Geisser	.000	.	.	
	Huynh-Feldt	.000	.	.	
	Lower-bound	.000	17.000	.000	
Visualization * DataAttributeTypes	Sphericity Assumed	6.861	4	1.715	2.195
	Greenhouse-Geisser	6.861	2.447	2.804	2.195
	Huynh-Feldt	6.861	2.889	2.375	2.195
	Lower-bound	6.861	1.000	6.861	2.195
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	53.139	68	.781	
	Greenhouse-Geisser	53.139	41.597	1.277	
	Huynh-Feldt	53.139	49.113	1.082	
	Lower-bound	53.139	17.000	3.126	
Visualization * Dataset	Sphericity Assumed	.750	4	.188	.395
	Greenhouse-Geisser	.750	2.600	.289	.395

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.446	54.652
	Greenhouse-Geisser	.000	.446	40.127
	Huynh-Feldt	.000	.446	49.418
	Lower-bound	.002	.446	13.663
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes	Sphericity Assumed	.	.	.
	Greenhouse-Geisser	.	.	.
	Huynh-Feldt	.	.	.
	Lower-bound	.	.	.
Error(DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Dataset	Sphericity Assumed	.	.	.
	Greenhouse-Geisser	.	.	.
	Huynh-Feldt	.	.	.
	Lower-bound	.	.	.
Error(Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes	Sphericity Assumed	.079	.114	8.780
	Greenhouse-Geisser	.114	.114	5.371
	Huynh-Feldt	.103	.114	6.341
	Lower-bound	.157	.114	2.195
Error (Visualization*DataAttribute Types)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Dataset	Sphericity Assumed	.811	.023	1.581
	Greenhouse-Geisser	.729	.023	1.028

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power ^a
Visualization	Sphericity Assumed	1.000
	Greenhouse-Geisser	1.000
	Huynh-Feldt	1.000
	Lower-bound	.936
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes	Sphericity Assumed	.
	Greenhouse-Geisser	.
	Huynh-Feldt	.
	Lower-bound	.
Error(DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Dataset	Sphericity Assumed	.
	Greenhouse-Geisser	.
	Huynh-Feldt	.
	Lower-bound	.
Error(Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes	Sphericity Assumed	.617
	Greenhouse-Geisser	.468
	Huynh-Feldt	.514
	Lower-bound	.288
Error (Visualization*DataAttribute Types)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Dataset	Sphericity Assumed	.136
	Greenhouse-Geisser	.117

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	.750	3.110	.241	.395
	Lower-bound	.750	1.000	.750	.395
Error(Visualization*Dataset)	Sphericity Assumed	32.250	68	.474	
	Greenhouse-Geisser	32.250	44.193	.730	
	Huynh-Feldt	32.250	52.878	.610	
	Lower-bound	32.250	17.000	1.897	
DataAttributeTypes * Dataset	Sphericity Assumed	.000	1	.000	.
	Greenhouse-Geisser	.000	.	.	.
	Huynh-Feldt	.000	.	.	.
	Lower-bound	.000	1.000	.000	.
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	.000	17	.000	
	Greenhouse-Geisser	.000	.	.	
	Huynh-Feldt	.000	.	.	
	Lower-bound	.000	17.000	.000	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	1.250	4	.313	1.269
	Greenhouse-Geisser	1.250	2.938	.425	1.269
	Huynh-Feldt	1.250	3.619	.345	1.269
	Lower-bound	1.250	1.000	1.250	1.269
Error (Visualization*DataAttributeTypes*Dataset)	Sphericity Assumed	16.750	68	.246	
	Greenhouse-Geisser	16.750	49.954	.335	
	Huynh-Feldt	16.750	61.528	.272	
	Lower-bound	16.750	17.000	.985	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.764	.023	1.230
	Lower-bound	.538	.023	.395
Error(Visualization*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes * Dataset	Sphericity Assumed	.	.	.
	Greenhouse-Geisser	.	.	.
	Huynh-Feldt	.	.	.
	Lower-bound	.	.	.
Error (DataAttributeTypes*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.291	.069	5.075
	Greenhouse-Geisser	.295	.069	3.728
	Huynh-Feldt	.293	.069	4.592
	Lower-bound	.276	.069	1.269
Error (Visualization*DataAttributeTypes*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power ^a
	Huynh-Feldt	.124
	Lower-bound	.091
Error(Visualization*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes * Dataset	Sphericity Assumed	.
	Greenhouse-Geisser	.
	Huynh-Feldt	.
	Lower-bound	.
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.376
	Greenhouse-Geisser	.315
	Huynh-Feldt	.355
	Lower-bound	.186
Error (Visualization*DataAttributeTypes*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Type III Sum of Squares	df
Visualization	Linear			131.756	1
	Quadratic			22.321	1
	Cubic			1.168	1
	Order 4			116.116	1
Error(Visualization)	Linear			78.344	17
	Quadratic			66.036	17
	Cubic			56.607	17
	Order 4			136.652	17
DataAttributeTypes		Linear		.000	1
Error(DataAttributeTypes)		Linear		.000	17
Dataset			Linear	2.842E-14	1
Error(Dataset)			Linear	.000	17
Visualization * DataAttributeTypes	Linear	Linear		2.450	1
	Quadratic	Linear		2.683	1
	Cubic	Linear		.613	1
	Order 4	Linear		1.116	1
Error (Visualization*DataAttribute Types)	Linear	Linear		17.150	17
	Quadratic	Linear		9.889	17
	Cubic	Linear		15.163	17
	Order 4	Linear		10.938	17
Visualization * Dataset	Linear		Linear	.022	1
	Quadratic		Linear	.671	1
	Cubic		Linear	.013	1
	Order 4		Linear	.045	1
Error(Visualization*Dataset)	Linear		Linear	2.878	17
	Quadratic		Linear	14.115	17
	Cubic		Linear	3.963	17
	Order 4		Linear	11.295	17
DataAttributeTypes * Dataset		Linear	Linear	.000	1
Error (DataAttributeTypes*Dataset)		Linear	Linear	.000	17
Visualization * DataAttributeTypes *	Linear	Linear	Linear	.450	1
	Quadratic	Linear	Linear	.254	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Visualization	Linear			131.756	28.590
	Quadratic			22.321	5.746
	Cubic			1.168	.351
	Order 4			116.116	14.445
Error(Visualization)	Linear			4.608	
	Quadratic			3.884	
	Cubic			3.330	
	Order 4			8.038	
DataAttributeTypes		Linear		.000	.
Error(DataAttributeTypes)		Linear		.000	
Dataset			Linear	2.842E-14	.
Error(Dataset)			Linear	.000	
Visualization * DataAttributeTypes	Linear	Linear		2.450	2.429
	Quadratic	Linear		2.683	4.612
	Cubic	Linear		.613	.687
	Order 4	Linear		1.116	1.735
Error (Visualization*DataAttribute Types)	Linear	Linear		1.009	
	Quadratic	Linear		.582	
	Cubic	Linear		.892	
	Order 4	Linear		.643	
Visualization * Dataset	Linear		Linear	.022	.131
	Quadratic		Linear	.671	.808
	Cubic		Linear	.013	.054
	Order 4		Linear	.045	.067
Error(Visualization*Dataset)	Linear		Linear	.169	
	Quadratic		Linear	.830	
	Cubic		Linear	.233	
	Order 4		Linear	.664	
DataAttributeTypes * Dataset		Linear	Linear	.000	.
Error (DataAttributeTypes*Dataset)		Linear	Linear	.000	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	.450	1.681
	Quadratic	Linear	Linear	.254	.883

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Sig.	Partial Eta Squared
Visualization	Linear			.000	.627
	Quadratic			.028	.253
	Cubic			.561	.020
	Order 4			.001	.459
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeTypes		Linear		.	.
Error(DataAttributeTypes)		Linear			
Dataset			Linear	.	1.000
Error(Dataset)			Linear		
Visualization * DataAttributeTypes	Linear	Linear		.138	.125
	Quadratic	Linear		.046	.213
	Cubic	Linear		.419	.039
	Order 4	Linear		.205	.093
Error (Visualization*DataAttribute Types)	Linear	Linear			
	Quadratic	Linear			
	Cubic	Linear			
	Order 4	Linear			
Visualization * Dataset	Linear		Linear	.722	.008
	Quadratic		Linear	.381	.045
	Cubic		Linear	.820	.003
	Order 4		Linear	.799	.004
Error(Visualization*Dataset)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributeTypes * Dataset		Linear	Linear	.	.
Error (DataAttributeTypes*Dataset)		Linear	Linear		
Visualization * DataAttributeTypes *	Linear	Linear	Linear	.212	.090
	Quadratic	Linear	Linear	.361	.049

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Noncent. Parameter
Visualization	Linear			28.590
	Quadratic			5.746
	Cubic			.351
	Order 4			14.445
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.
Error(DataAttributeTypes)		Linear		
Dataset			Linear	.
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		2.429
	Quadratic	Linear		4.612
	Cubic	Linear		.687
	Order 4	Linear		1.735
Error (Visualization*DataAttribute Types)	Linear	Linear		
	Quadratic	Linear		
	Cubic	Linear		
	Order 4	Linear		
Visualization * Dataset	Linear		Linear	.131
	Quadratic		Linear	.808
	Cubic		Linear	.054
	Order 4		Linear	.067
Error(Visualization*Dataset)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTypes * Dataset		Linear	Linear	.
Error (DataAttributeTypes*Datase t)		Linear	Linear	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	1.681
	Quadratic	Linear	Linear	.883

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Observed Power ^a
Visualization	Linear			.999
	Quadratic			.618
	Cubic			.087
	Order 4			.947
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.
Error(DataAttributeTypes)		Linear		
Dataset			Linear	.
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.313
	Quadratic	Linear		.526
	Cubic	Linear		.123
	Order 4	Linear		.237
Error (Visualization*DataAttribute Types)	Linear	Linear		
	Quadratic	Linear		
	Cubic	Linear		
	Order 4	Linear		
Visualization * Dataset	Linear		Linear	.064
	Quadratic		Linear	.136
	Cubic		Linear	.056
	Order 4		Linear	.057
Error(Visualization*Dataset)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTypes * Dataset		Linear	Linear	.
Error (DataAttributeTypes*Dataset)		Linear	Linear	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	.232
	Quadratic	Linear	Linear	.144

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Type III Sum of Squares	df
Dataset	Cubic	Linear	Linear	.501	1
	Order 4	Linear	Linear	.045	1
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	4.550	17
	Quadratic	Linear	Linear	4.889	17
	Cubic	Linear	Linear	3.874	17
	Order 4	Linear	Linear	3.438	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Dataset	Cubic	Linear	Linear	.501	2.200
	Order 4	Linear	Linear	.045	.221
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	.268	
	Quadratic	Linear	Linear	.288	
	Cubic	Linear	Linear	.228	
	Order 4	Linear	Linear	.202	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Sig.	Partial Eta Squared
Dataset	Cubic	Linear	Linear	.156	.115
	Order 4	Linear	Linear	.644	.013
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear		
	Quadratic	Linear	Linear		
	Cubic	Linear	Linear		
	Order 4	Linear	Linear		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Noncent. Parameter
Dataset	Cubic	Linear	Linear	2.200
	Order 4	Linear	Linear	.221
Error (Visualization*DataAttribute Types*Dataset)	Linear	Linear	Linear	
	Quadratic	Linear	Linear	
	Cubic	Linear	Linear	
	Order 4	Linear	Linear	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Observed Power ^a
Dataset	Cubic	Linear	Linear	.288
	Order 4	Linear	Linear	.073
Error (Visualization*DataAttribute Types*Dataset)	Linear	Linear	Linear	
	Quadratic	Linear	Linear	
	Cubic	Linear	Linear	
	Order 4	Linear	Linear	

a. Computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	3240.000	1	3240.000	.	.	1.000
Error	.000	17	.000			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power ^a
Intercept	.	.
Error		

a. Computed using alpha = .05

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
3.000	.000	3.000	3.000

2. Visualization

Estimates

Measure: MEASURE_1

Visualization	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	1.958	.192	1.553	2.363
2	2.194	.230	1.709	2.680
3	4.208	.257	3.665	4.751
4	2.889	.215	2.435	3.343
5	3.750	.271	3.178	4.322

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence b...
					Lower Bound
1	2	-.236	.356	1.000	-1.382
	3	-2.250 [*]	.246	.000	-3.042
	4	-.931	.353	.175	-2.070
	5	-1.792 [*]	.385	.002	-3.033
2	1	.236	.356	1.000	-.910
	3	-2.014 [*]	.444	.003	-3.446
	4	-.694	.269	.192	-1.560
	5	-1.556 [*]	.380	.008	-2.780
3	1	2.250 [*]	.246	.000	1.458
	2	2.014 [*]	.444	.003	.582
	4	1.319 [*]	.393	.037	.054
	5	.458	.442	1.000	-.964
4	1	.931	.353	.175	-.208
	2	.694	.269	.192	-.171
	3	-1.319 [*]	.393	.037	-2.585
	5	-.861	.395	.434	-2.133
5	1	1.792 [*]	.385	.002	.550
	2	1.556 [*]	.380	.008	.331
	3	-.458	.442	1.000	-1.881
	4	.861	.395	.434	-.411

Pairwise Comparisons

Measure: MEASURE_1

		95% Confidence Interval for ^b ...
(I) Visualization	(J) Visualization	Upper Bound
1	2	.910
	3	-1.458
	4	.208
	5	-.550
2	1	1.382
	3	-.582
	4	.171
	5	-.331
3	1	3.042
	2	3.446
	4	2.585
	5	1.881
4	1	2.070
	2	1.560
	3	-.054
	5	.411
5	1	3.033
	2	2.780
	3	.964
	4	2.133

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.855	20.671 ^a	4.000	14.000	.000	.855
Wilks' lambda	.145	20.671 ^a	4.000	14.000	.000	.855
Hotelling's trace	5.906	20.671 ^a	4.000	14.000	.000	.855
Roy's largest root	5.906	20.671 ^a	4.000	14.000	.000	.855

Multivariate Tests

	Noncent. Parameter	Observed Power ^b
Pillai's trace	82.682	1.000
Wilks' lambda	82.682	1.000
Hotelling's trace	82.682	1.000
Roy's largest root	82.682	1.000

Each F tests the multivariate effect of Visualization. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

b. Computed using alpha = .05

3. DataAttributeTypes

Estimates

Measure: MEASURE_1

DataAttributeTypes	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	3.000	.000	3.000	3.000
2	3.000	.000	3.000	3.000

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for ... Lower Bound
1	2	.000	.000	.	.000
2	1	.000	.000	.	.000

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	95% Confidence Interval for ... Upper Bound
1	2	.000
2	1	.000

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.	^a	.	.	.	.
Wilks' lambda	.	^a	.	.	.	.
Hotelling's trace	.	^a	.	.	.	.
Roy's largest root	.	^a	.	.	.	.

Multivariate Tests

	Noncent. Parameter	Observed Power ^b
Pillai's trace	.	.
Wilks' lambda	.	.
Hotelling's trace	.	.
Roy's largest root	.	.

Each F tests the multivariate effect of DataAttributeTypes. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic

b. Computed using alpha = .05

4. Visualization * DataAttributeTypes

Measure: MEASURE_1

Visualization	DataAttributeTypes	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	1.694	.172	1.331	2.058
	2	2.222	.275	1.642	2.802
2	1	2.306	.243	1.793	2.818
	2	2.083	.240	1.577	2.590
3	1	4.222	.278	3.636	4.808
	2	4.194	.250	3.668	4.721
4	1	3.000	.259	2.454	3.546
	2	2.778	.236	2.279	3.277
5	1	3.778	.266	3.217	4.338
	2	3.722	.289	3.112	4.333