```
 Your temporary usage period for IBM SPSS Statistics will expire in 12 days.

Your  license will expire in 12 days.
GET
  FILE='C:\Users\Bahador\Desktop\Analysis\Anomalies_Ranking.sav'.
DATASET NAME DataSet1 WINDOW=FRONT.
GLM Bar_Nom_Num_Car Bar_Nom_Num_Movie Bar_Num_Num_Car Bar_Num_Num_Movie Bar_Or
d_Num_Car
    Bar_Ord_Num_Movie Line_Nom_Num_Car Line_Nom_Num_Movie Line_Num_Num_Car Lin
e_Num_Num_Movie
    Line_Ord_Num_Car Line_Ord_Num_Movie Pie_Nom_Num_Car Pie_Nom_Num_Movie Pie_
Num_Num_Car
    Pie_Num_Num_Movie Pie_Ord_Num_Car Pie_Ord_Num_Movie Scatter_Nom_Num_Car Sc
atter_Nom_Num_Movie
    Scatter_Num_Num_Car Scatter_Num_Num_Movie Scatter_Ord_Num_Car Scatter_Ord_
Num_Movie
    Table_Nom_Num_Car Table_Nom_Num_Movie Table_Num_Num_Car Table_Num_Num_Movi
e Table_Ord_Num_Car
    Table_Ord_Num_Movie
  /WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 3 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*DataAttribu
teTypes
    Visualization*Dataset DataAttributeTypes*Dataset Visualization*DataAttribu
teTypes*Dataset.
```

General Linear Model

Notes

Output Created		05-SEP-2016 17:19:48
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\Anomalies_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_Nom_Num_Car Bar_Nom_Num_Movie Bar_Num_Num_Car Bar_Num_Num_Movie Bar_Ord_Num_Car Bar_Ord_Num_Movie Line_Nom_Num_Car Line_Nom_Num_Movie Line_Num_Num_Car Line_Num_Num_Movie Line_Ord_Num_Car Line_Ord_Num_Movie Pie_Nom_Num_Car Pie_Nom_Num_Movie Pie_Num_Num_Car Pie_Num_Num_Movie Pie_Ord_Num_Car Pie_Ord_Num_Movie Scatter_Nom_Num_Car Scatter_Nom_Num_Movie Scatter_Num_Num_Car Scatter_Num_Num_Movie Scatter_Ord_Num_Car Scatter_Ord_Num_Movie Table_Nom_Num_Car Table_Nom_Num_Movie Table_Num_Num_Car Table_Num_Num_Movie Table_Ord_Num_Car Table_Ord_Num_Movie /WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 3 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*Datas

Notes

Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.04

[DataSet1] C:\Users\Bahador\Desktop\Analysis\Anomalies_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_Nom_Num_Car
		2	Bar_Nom_Num_Movie
	2	1	Bar_Num_Num_Car
		2	Bar_Num_Num_Movie
	3	1	Bar_Ord_Num_Car
		2	Bar_Ord_Num_Movie
2	1	1	Line_Nom_Num_Car
		2	Line_Nom_Num_Movie
	2	1	Line_Num_Num_Car
		2	Line_Num_Num_Movie
	3	1	Line_Ord_Num_Car
		2	Line_Ord_Num_Movie
3	1	1	Pie_Nom_Num_Car
		2	Pie_Nom_Num_Movie

Within-Subjects Factors

Measure: MEASURE_1

Visualization	DataAttributeTypes	Dataset	Dependent Variable
	2	1	Pie_Num_Num_Car
		2	Pie_Num_Num_Movie
	3	1	Pie_Ord_Num_Car
		2	Pie_Ord_Num_Movie
4	1	1	Scatter_Nom_Num_Car
		2	Scatter_Nom_Num_Movie
	2	1	Scatter_Num_Num_Car
		2	Scatter_Num_Num_Movie
	3	1	Scatter_Ord_Num_Car
		2	Scatter_Ord_Num_Movie
5	1	1	Table_Nom_Num_Car
		2	Table_Nom_Num_Movie
	2	1	Table_Num_Num_Car
		2	Table_Num_Num_Movie
	3	1	Table_Ord_Num_Car
		2	Table_Ord_Num_Movie

Descriptive Statistics

	Mean	Std. Deviation	N
Bar_Nom_Num_Car	2.1667	1.04319	18
Bar_Nom_Num_Movie	3.1667	1.29479	18
Bar_Num_Num_Car	3.1667	1.29479	18
Bar_Num_Num_Movie	2.6667	1.18818	18
Bar_Ord_Num_Car	2.8333	1.24853	18
Bar_Ord_Num_Movie	2.6111	1.19503	18
Line_Nom_Num_Car	3.6111	1.37793	18
Line_Nom_Num_Movie	2.8889	1.36722	18
Line_Num_Num_Car	2.5000	.92355	18
Line_Num_Num_Movie	3.0556	1.30484	18
Line_Ord_Num_Car	2.7778	1.11437	18
Line_Ord_Num_Movie	3.2778	1.12749	18
Pie_Nom_Num_Car	3.8333	1.20049	18
Pie_Nom_Num_Movie	3.8889	1.18266	18
Pie_Num_Num_Car	4.1667	1.09813	18
Pie_Num_Num_Movie	3.9444	1.16175	18
Pie_Ord_Num_Car	4.2222	1.26284	18
Pie_Ord_Num_Movie	3.6111	1.37793	18
Scatter_Nom_Num_Car	2.5556	1.38148	18
Scatter_Nom_Num_Movie	2.1667	1.42457	18
Scatter_Num_Num_Car	2.1111	1.40958	18
Scatter_Num_Num_Movie	2.5000	1.33945	18
Scatter_Ord_Num_Car	2.3889	1.41998	18
Scatter_Ord_Num_Movie	2.6111	1.46082	18
Table_Nom_Num_Car	2.8333	1.46528	18
Table_Nom_Num_Movie	2.8889	1.40958	18
Table_Num_Num_Car	3.0556	1.51356	18
Table_Num_Num_Movie	2.5000	1.33945	18
Table_Ord_Num_Car	2.7778	1.43714	18
Table_Ord_Num_Movie	2.8889	1.74521	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.611	5.502[b]	4.000	14.000
	Wilks' Lambda	.389	5.502[b]	4.000	14.000
	Hotelling's Trace	1.572	5.502[b]	4.000	14.000
	Roy's Largest Root	1.572	5.502[b]	4.000	14.000
DataAttributeTypes	Pillai's Trace	.015	.254[b]	1.000	17.000
	Wilks' Lambda	.985	.254[b]	1.000	17.000
	Hotelling's Trace	.015	.254[b]	1.000	17.000
	Roy's Largest Root	.015	.254[b]	1.000	17.000
Dataset	Pillai's Trace	.015	.254[b]	1.000	17.000
	Wilks' Lambda	.985	.254[b]	1.000	17.000
	Hotelling's Trace	.015	.254[b]	1.000	17.000
	Roy's Largest Root	.015	.254[b]	1.000	17.000
Visualization * DataAttributeTypes	Pillai's Trace	.565	1.623[b]	8.000	10.000
	Wilks' Lambda	.435	1.623[b]	8.000	10.000
	Hotelling's Trace	1.298	1.623[b]	8.000	10.000
	Roy's Largest Root	1.298	1.623[b]	8.000	10.000
Visualization * Dataset	Pillai's Trace	.209	.926[b]	4.000	14.000
	Wilks' Lambda	.791	.926[b]	4.000	14.000
	Hotelling's Trace	.265	.926[b]	4.000	14.000
	Roy's Largest Root	.265	.926[b]	4.000	14.000
DataAttributeTypes * Dataset	Pillai's Trace	.015	.254[b]	1.000	17.000
	Wilks' Lambda	.985	.254[b]	1.000	17.000
	Hotelling's Trace	.015	.254[b]	1.000	17.000
	Roy's Largest Root	.015	.254[b]	1.000	17.000
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.600	1.873[b]	8.000	10.000
	Wilks' Lambda	.400	1.873[b]	8.000	10.000
	Hotelling's Trace	1.499	1.873[b]	8.000	10.000
	Roy's Largest Root	1.499	1.873[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.007	.611	22.009
	Wilks' Lambda	.007	.611	22.009
	Hotelling's Trace	.007	.611	22.009
	Roy's Largest Root	.007	.611	22.009
DataAttributeTypes	Pillai's Trace	.621	.015	.254
	Wilks' Lambda	.621	.015	.254
	Hotelling's Trace	.621	.015	.254
	Roy's Largest Root	.621	.015	.254
Dataset	Pillai's Trace	.621	.015	.254
	Wilks' Lambda	.621	.015	.254
	Hotelling's Trace	.621	.015	.254
	Roy's Largest Root	.621	.015	.254
Visualization * DataAttributeTypes	Pillai's Trace	.233	.565	12.982
	Wilks' Lambda	.233	.565	12.982
	Hotelling's Trace	.233	.565	12.982
	Roy's Largest Root	.233	.565	12.982
Visualization * Dataset	Pillai's Trace	.477	.209	3.704
	Wilks' Lambda	.477	.209	3.704
	Hotelling's Trace	.477	.209	3.704
	Roy's Largest Root	.477	.209	3.704
DataAttributeTypes * Dataset	Pillai's Trace	.621	.015	.254
	Wilks' Lambda	.621	.015	.254
	Hotelling's Trace	.621	.015	.254
	Roy's Largest Root	.621	.015	.254
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.174	.600	14.985
	Wilks' Lambda	.174	.600	14.985
	Hotelling's Trace	.174	.600	14.985
	Roy's Largest Root	.174	.600	14.985

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	.905
	Wilks' Lambda	.905
	Hotelling's Trace	.905
	Roy's Largest Root	.905
DataAttributeTypes	Pillai's Trace	.076
	Wilks' Lambda	.076
	Hotelling's Trace	.076
	Roy's Largest Root	.076
Dataset	Pillai's Trace	.076
	Wilks' Lambda	.076
	Hotelling's Trace	.076
	Roy's Largest Root	.076
Visualization * DataAttributeTypes	Pillai's Trace	.410
	Wilks' Lambda	.410
	Hotelling's Trace	.410
	Roy's Largest Root	.410
Visualization * Dataset	Pillai's Trace	.222
	Wilks' Lambda	.222
	Hotelling's Trace	.222
	Roy's Largest Root	.222
DataAttributeTypes * Dataset	Pillai's Trace	.076
	Wilks' Lambda	.076
	Hotelling's Trace	.076
	Roy's Largest Root	.076
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.470
	Wilks' Lambda	.470
	Hotelling's Trace	.470
	Roy's Largest Root	.470

a. Design: Intercept
Within Subjects Design: Visualization + DataAttributeTypes + Dataset + Visualization * DataAttributeTypes + Visualization * Dataset + DataAttributeTypes * Dataset + Visualization * ...

b. Exact statistic

c.

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	.627	7.202	9	.618	.800
DataAttributeTypes	.000	.	2	.	.500
Dataset	1.000	.000	0	.	1.000
Visualization * DataAttributeTypes	.016	58.372	35	.010	.538
Visualization * Dataset	.586	8.228	9	.514	.801
DataAttributeTypes * Dataset	.000	.	2	.	.500
Visualization * DataAttributeTypes * Dataset	.008	68.656	35	.001	.505

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	1.000	.250
DataAttributeTypes	.500	.500
Dataset	1.000	1.000
Visualization * DataAttributeTypes	.743	.125
Visualization * Dataset	1.000	.250
DataAttributeTypes * Dataset	.500	.500
Visualization * DataAttributeTypes * Dataset	.682	.125

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	145.767	4	36.442	5.942
	Greenhouse-Geisser	145.767	3.199	45.567	5.942
	Huynh-Feldt	145.767	4.000	36.442	5.942
	Lower-bound	145.767	1.000	145.767	5.942
Error(Visualization)	Sphericity Assumed	417.033	68	6.133	
	Greenhouse-Geisser	417.033	54.383	7.668	
	Huynh-Feldt	417.033	68.000	6.133	
	Lower-bound	417.033	17.000	24.531	
DataAttributeTypes	Sphericity Assumed	.133	2	.067	.254
	Greenhouse-Geisser	.133	1.000	.133	.254
	Huynh-Feldt	.133	1.000	.133	.254
	Lower-bound	.133	1.000	.133	.254
Error(DataAttributeTypes)	Sphericity Assumed	8.933	34	.263	
	Greenhouse-Geisser	8.933	17.000	.525	
	Huynh-Feldt	8.933	17.000	.525	
	Lower-bound	8.933	17.000	.525	
Dataset	Sphericity Assumed	.067	1	.067	.254
	Greenhouse-Geisser	.067	1.000	.067	.254
	Huynh-Feldt	.067	1.000	.067	.254
	Lower-bound	.067	1.000	.067	.254
Error(Dataset)	Sphericity Assumed	4.467	17	.263	
	Greenhouse-Geisser	4.467	17.000	.263	
	Huynh-Feldt	4.467	17.000	.263	
	Lower-bound	4.467	17.000	.263	
Visualization * DataAttributeTypes	Sphericity Assumed	6.700	8	.838	.704
	Greenhouse-Geisser	6.700	4.302	1.557	.704

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.259	23.768
	Greenhouse-Geisser	.001	.259	19.009
	Huynh-Feldt	.000	.259	23.768
	Lower-bound	.026	.259	5.942
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes	Sphericity Assumed	.777	.015	.507
	Greenhouse-Geisser	.621	.015	.254
	Huynh-Feldt	.621	.015	.254
	Lower-bound	.621	.015	.254
Error(DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Dataset	Sphericity Assumed	.621	.015	.254
	Greenhouse-Geisser	.621	.015	.254
	Huynh-Feldt	.621	.015	.254
	Lower-bound	.621	.015	.254
Error(Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes	Sphericity Assumed	.688	.040	5.628
	Greenhouse-Geisser	.602	.040	3.027

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	.978
	Greenhouse-Geisser	.952
	Huynh-Feldt	.978
	Lower-bound	.633
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes	Sphericity Assumed	.087
	Greenhouse-Geisser	.076
	Huynh-Feldt	.076
	Lower-bound	.076
Error(DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Dataset	Sphericity Assumed	.076
	Greenhouse-Geisser	.076
	Huynh-Feldt	.076
	Lower-bound	.076
Error(Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes	Sphericity Assumed	.316
	Greenhouse-Geisser	.225

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	6.700	5.941	1.128	.704
	Lower-bound	6.700	1.000	6.700	.704
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	161.900	136	1.190	
	Greenhouse-Geisser	161.900	73.133	2.214	
	Huynh-Feldt	161.900	100.992	1.603	
	Lower-bound	161.900	17.000	9.524	
Visualization * Dataset	Sphericity Assumed	2.915	4	.729	.496
	Greenhouse-Geisser	2.915	3.202	.910	.496
	Huynh-Feldt	2.915	4.000	.729	.496
	Lower-bound	2.915	1.000	2.915	.496
Error(Visualization*Dataset)	Sphericity Assumed	99.885	68	1.469	
	Greenhouse-Geisser	99.885	54.439	1.835	
	Huynh-Feldt	99.885	68.000	1.469	
	Lower-bound	99.885	17.000	5.876	
DataAttributeTypes * Dataset	Sphericity Assumed	.133	2	.067	.254
	Greenhouse-Geisser	.133	1.000	.133	.254
	Huynh-Feldt	.133	1.000	.133	.254
	Lower-bound	.133	1.000	.133	.254
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	8.933	34	.263	
	Greenhouse-Geisser	8.933	17.000	.525	
	Huynh-Feldt	8.933	17.000	.525	
	Lower-bound	8.933	17.000	.525	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	28.219	8	3.527	2.751
	Greenhouse-Geisser	28.219	4.041	6.983	2.751
	Huynh-Feldt	28.219	5.459	5.170	2.751
	Lower-bound	28.219	1.000	28.219	2.751
Error (Visualization*DataAttributeTypes*Dataset)	Sphericity Assumed	174.381	136	1.282	
	Greenhouse-Geisser	174.381	68.697	2.538	
	Huynh-Feldt	174.381	92.795	1.879	
	Lower-bound	174.381	17.000	10.258	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.646	.040	4.179
	Lower-bound	.413	.040	.704
Error (Visualization*DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Dataset	Sphericity Assumed	.739	.028	1.984
	Greenhouse-Geisser	.698	.028	1.589
	Huynh-Feldt	.739	.028	1.984
	Lower-bound	.491	.028	.496
Error(Visualization*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes * Dataset	Sphericity Assumed	.777	.015	.507
	Greenhouse-Geisser	.621	.015	.254
	Huynh-Feldt	.621	.015	.254
	Lower-bound	.621	.015	.254
Error (DataAttributeTypes*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.008	.139	22.008
	Greenhouse-Geisser	.034	.139	11.117
	Huynh-Feldt	.020	.139	15.016
	Lower-bound	.116	.139	2.751
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	.267
	Lower-bound	.124
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Dataset	Sphericity Assumed	.161
	Greenhouse-Geisser	.147
	Huynh-Feldt	.161
	Lower-bound	.102
Error(Visualization*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes * Dataset	Sphericity Assumed	.087
	Greenhouse-Geisser	.076
	Huynh-Feldt	.076
	Lower-bound	.076
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.927
	Greenhouse-Geisser	.732
	Huynh-Feldt	.830
	Lower-bound	.347
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			2.904	1
	Quadratic			34.381	1
	Cubic			18.670	1
	Order 4			89.812	1
Error(Visualization)	Linear			78.230	17
	Quadratic			105.000	17
	Cubic			78.696	17
	Order 4			155.107	17
DataAttributeTypes		Linear		.000	1
		Quadratic		.133	1
Error(DataAttributeTypes)		Linear		.000	17
		Quadratic		8.933	17
Dataset			Linear	.067	1
Error(Dataset)			Linear	4.467	17
Visualization * DataAttributeTypes	Linear	Linear		.068	1
		Quadratic		.289	1
	Quadratic	Linear		.001	1
		Quadratic		.360	1
	Cubic	Linear		1.168	1
		Quadratic		1.400	1
	Order 4	Linear		.124	1
		Quadratic		3.289	1
Error (Visualization*DataAttributeTypes)	Linear	Linear		25.107	17
		Quadratic		32.902	17
	Quadratic	Linear		15.981	17
		Quadratic		8.491	17
	Cubic	Linear		14.157	17
		Quadratic		6.908	17
	Order 4	Linear		43.894	17
		Quadratic		14.460	17
Visualization * Dataset	Linear		Linear	.626	1
	Quadratic		Linear	.130	1
	Cubic		Linear	.059	1
	Order 4		Linear	2.100	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Visualization	Linear			2.904	.631
	Quadratic			34.381	5.566
	Cubic			18.670	4.033
	Order 4			89.812	9.843
Error(Visualization)	Linear			4.602	
	Quadratic			6.176	
	Cubic			4.629	
	Order 4			9.124	
DataAttributeTypes		Linear		.000	.
		Quadratic		.133	.254
Error(DataAttributeTypes)		Linear		.000	
		Quadratic		.525	
Dataset			Linear	.067	.254
Error(Dataset)			Linear	.263	
Visualization * DataAttributeTypes	Linear	Linear		.068	.046
		Quadratic		.289	.150
	Quadratic	Linear		.001	.001
		Quadratic		.360	.721
	Cubic	Linear		1.168	1.403
		Quadratic		1.400	3.446
	Order 4	Linear		.124	.048
		Quadratic		3.289	3.867
Error (Visualization*DataAttributeTypes)	Linear	Linear		1.477	
		Quadratic		1.935	
	Quadratic	Linear		.940	
		Quadratic		.499	
	Cubic	Linear		.833	
		Quadratic		.406	
	Order 4	Linear		2.582	
		Quadratic		.851	
Visualization * Dataset	Linear		Linear	.626	.383
	Quadratic		Linear	.130	.079
	Cubic		Linear	.059	.036
	Order 4		Linear	2.100	2.184

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Sig.	Partial Eta Squared
Visualization	Linear			.438	.036
	Quadratic			.031	.247
	Cubic			.061	.192
	Order 4			.006	.367
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeTypes		Linear		.	.
		Quadratic		.621	.015
Error(DataAttributeTypes)		Linear			
		Quadratic			
Dataset			Linear	.621	.015
Error(Dataset)			Linear		
Visualization * DataAttributeTypes	Linear	Linear		.833	.003
		Quadratic		.704	.009
	Quadratic	Linear		.974	.000
		Quadratic		.408	.041
	Cubic	Linear		.253	.076
		Quadratic		.081	.169
	Order 4	Linear		.829	.003
		Quadratic		.066	.185
Error (Visualization*DataAttributeTypes)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Dataset	Linear		Linear	.544	.022
	Quadratic		Linear	.783	.005
	Cubic		Linear	.851	.002
	Order 4		Linear	.158	.114

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Noncent. Parameter
Visualization	Linear			.631
	Quadratic			5.566
	Cubic			4.033
	Order 4			9.843
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.
		Quadratic		.254
Error(DataAttributeTypes)		Linear		
		Quadratic		
Dataset			Linear	.254
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.046
		Quadratic		.150
	Quadratic	Linear		.001
		Quadratic		.721
	Cubic	Linear		1.403
		Quadratic		3.446
	Order 4	Linear		.048
		Quadratic		3.867
Error (Visualization*DataAttributeTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.383
	Quadratic		Linear	.079
	Cubic		Linear	.036
	Order 4		Linear	2.184

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Observed Power[a]
Visualization	Linear			.117
	Quadratic			.604
	Cubic			.474
	Order 4			.840
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.
		Quadratic		.076
Error(DataAttributeTypes)		Linear		
		Quadratic		
Dataset			Linear	.076
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.055
		Quadratic		.065
	Quadratic	Linear		.050
		Quadratic		.126
	Cubic	Linear		.201
		Quadratic		.418
	Order 4	Linear		.055
		Quadratic		.458
Error (Visualization*DataAttributeTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.090
	Quadratic		Linear	.058
	Cubic		Linear	.054
	Order 4		Linear	.286

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Type III Sum of Squares	df
Error(Visualization*Dataset)	Linear		Linear	27.774	17
	Quadratic		Linear	28.061	17
	Cubic		Linear	27.707	17
	Order 4		Linear	16.343	17
DataAttributeTypes * Dataset		Linear	Linear	.000	1
		Quadratic	Linear	.133	1
Error (DataAttributeTypes*Dataset)		Linear	Linear	.000	17
		Quadratic	Linear	8.933	17
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	1.701	1
		Quadratic	Linear	.056	1
	Quadratic	Linear	Linear	2.580	1
		Quadratic	Linear	7.945	1
	Cubic	Linear	Linear	2.813	1
		Quadratic	Linear	.245	1
	Order 4	Linear	Linear	10.045	1
		Quadratic	Linear	2.834	1
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	14.574	17
		Quadratic	Linear	29.769	17
	Quadratic	Linear	Linear	30.616	17
		Quadratic	Linear	31.883	17
	Cubic	Linear	Linear	6.913	17
		Quadratic	Linear	9.263	17
	Order 4	Linear	Linear	38.259	17
		Quadratic	Linear	13.105	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Error(Visualization*Dataset)	Linear		Linear	1.634	
	Quadratic		Linear	1.651	
	Cubic		Linear	1.630	
	Order 4		Linear	.961	
DataAttributeTypes * Dataset		Linear	Linear	.000	.
		Quadratic	Linear	.133	.254
Error (DataAttributeTypes*Dataset)		Linear	Linear	.000	
		Quadratic	Linear	.525	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	1.701	1.985
		Quadratic	Linear	.056	.032
	Quadratic	Linear	Linear	2.580	1.433
		Quadratic	Linear	7.945	4.236
	Cubic	Linear	Linear	2.813	6.917
		Quadratic	Linear	.245	.449
	Order 4	Linear	Linear	10.045	4.463
		Quadratic	Linear	2.834	3.676
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	.857	
		Quadratic	Linear	1.751	
	Quadratic	Linear	Linear	1.801	
		Quadratic	Linear	1.875	
	Cubic	Linear	Linear	.407	
		Quadratic	Linear	.545	
	Order 4	Linear	Linear	2.251	
		Quadratic	Linear	.771	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Sig.	Partial Eta Squared
Error(Visualization*Dataset)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributeTypes * Dataset		Linear	Linear	.	.
		Quadratic	Linear	.621	.015
Error (DataAttributeTypes*Dataset)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.177	.105
		Quadratic	Linear	.860	.002
	Quadratic	Linear	Linear	.248	.078
		Quadratic	Linear	.055	.199
	Cubic	Linear	Linear	.018	.289
		Quadratic	Linear	.512	.026
	Order 4	Linear	Linear	.050	.208
		Quadratic	Linear	.072	.178
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear		
		Quadratic	Linear		
	Quadratic	Linear	Linear		
		Quadratic	Linear		
	Cubic	Linear	Linear		
		Quadratic	Linear		
	Order 4	Linear	Linear		
		Quadratic	Linear		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Noncent. Parameter
Error(Visualization*Dataset)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTypes * Dataset		Linear	Linear	.
		Quadratic	Linear	.254
Error (DataAttributeTypes*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	1.985
		Quadratic	Linear	.032
	Quadratic	Linear	Linear	1.433
		Quadratic	Linear	4.236
	Cubic	Linear	Linear	6.917
		Quadratic	Linear	.449
	Order 4	Linear	Linear	4.463
		Quadratic	Linear	3.676
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	
		Quadratic	Linear	
	Quadratic	Linear	Linear	
		Quadratic	Linear	
	Cubic	Linear	Linear	
		Quadratic	Linear	
	Order 4	Linear	Linear	
		Quadratic	Linear	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Observed Power[a]
Error(Visualization*Dataset)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTypes * Dataset		Linear	Linear	.
		Quadratic	Linear	.076
Error (DataAttributeTypes*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.265
		Quadratic	Linear	.053
	Quadratic	Linear	Linear	.204
		Quadratic	Linear	.493
	Cubic	Linear	Linear	.698
		Quadratic	Linear	.097
	Order 4	Linear	Linear	.513
		Quadratic	Linear	.440
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	
		Quadratic	Linear	
	Quadratic	Linear	Linear	
		Quadratic	Linear	
	Cubic	Linear	Linear	
		Quadratic	Linear	
	Order 4	Linear	Linear	
		Quadratic	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	4824.067	1	4824.067	18360.254	.000	.999
Error	4.467	17	.263			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	18360.254	1.000
Error		

a. Computed using alpha = .05

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

		95% Confidence Interval	
Mean	Std. Error	Lower Bound	Upper Bound
2.989	.022	2.942	3.035

2. Visualization

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
Visualization	Mean	Std. Error	Lower Bound	Upper Bound
1	2.769	.199	2.350	3.187
2	3.019	.188	2.623	3.414
3	3.944	.205	3.511	4.377
4	2.389	.264	1.832	2.946
5	2.824	.208	2.386	3.262

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-.250	.322	1.000	-1.289
	3	-1.176*	.278	.006	-2.072
	4	.380	.384	1.000	-.857
	5	-.056	.314	1.000	-1.066
2	1	.250	.322	1.000	-.789
	3	-.926	.322	.104	-1.963
	4	.630	.269	.319	-.238
	5	.194	.323	1.000	-.845
3	1	1.176*	.278	.006	.280
	2	.926	.322	.104	-.111
	4	1.556*	.393	.010	.290
	5	1.120*	.327	.032	.066
4	1	-.380	.384	1.000	-1.616
	2	-.630	.269	.319	-1.498
	3	-1.556*	.393	.010	-2.821
	5	-.435	.409	1.000	-1.754
5	1	.056	.314	1.000	-.955
	2	-.194	.323	1.000	-1.234
	3	-1.120*	.327	.032	-2.175
	4	.435	.409	1.000	-.883

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	.789
	3	-.280
	4	1.616
	5	.955
2	1	1.289
	3	.111
	4	1.498
	5	1.234
3	1	2.072
	2	1.963
	4	2.821
	5	2.175
4	1	.857
	2	.238
	3	-.290
	5	.883
5	1	1.066
	2	.845
	3	-.066
	4	1.754

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	.611	5.502[a]	4.000	14.000	.007	.611
Wilks' lambda	.389	5.502[a]	4.000	14.000	.007	.611
Hotelling's trace	1.572	5.502[a]	4.000	14.000	.007	.611
Roy's largest root	1.572	5.502[a]	4.000	14.000	.007	.611

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	22.009	.905
Wilks' lambda	22.009	.905
Hotelling's trace	22.009	.905
Roy's largest root	22.009	.905

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

			95% Confidence Interval	
DataAttributeTypes	Mean	Std. Error	Lower Bound	Upper Bound
1	3.000	.000	3.000	3.000
2	2.967	.066	2.827	3.106
3	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 [a]... Lower Bound
1	2	.033	.066	1.000	-.142
	3	-5.551E-17	.000	.	-5.551E-17
2	1	-.033	.066	1.000	-.209
	3	-.033	.066	1.000	-.209
3	1	5.551E-17	.000	.	5.551E-17
	2	.033	.066	1.000	-.142

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	95% Confidence Interval for [a]... Upper Bound
1	2	.209
	3	-5.551E-17
2	1	.142
	3	.142
3	1	5.551E-17
	2	.209

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	.015	.254[a]	1.000	17.000	.621	.015
Wilks' lambda	.985	.254[a]	1.000	17.000	.621	.015
Hotelling's trace	.015	.254[a]	1.000	17.000	.621	.015
Roy's largest root	.015	.254[a]	1.000	17.000	.621	.015

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	.254	.076
Wilks' lambda	.254	.076
Hotelling's trace	.254	.076
Roy's largest root	.254	.076

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

				95% Confidence Interval	
Visualization	DataAttributeTypes	Mean	Std. Error	Lower Bound	Upper Bound
1	1	2.667	.225	2.192	3.142
	2	2.917	.253	2.382	3.451
	3	2.722	.233	2.231	3.214
2	1	3.250	.256	2.709	3.791
	2	2.778	.207	2.341	3.214
	3	3.028	.200	2.606	3.450
3	1	3.861	.209	3.420	4.303
	2	4.056	.217	3.597	4.514
	3	3.917	.272	3.343	4.490
4	1	2.361	.285	1.759	2.963
	2	2.306	.303	1.667	2.945
	3	2.500	.308	1.850	3.150
5	1	2.861	.291	2.247	3.475
	2	2.778	.163	2.434	3.121
	3	2.833	.326	2.146	3.521