```
 Your temporary usage period for IBM SPSS Statistics will expire in 10 days.

Your  license will expire in 10 days.
GET
  FILE='C:\Users\Bahador\Desktop\Analysis\EXtremum\Extremum_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 DataAttributeTime 3 Polynomial Datasets
 2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(DataAttributeTime) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Visualization*DataAttributeTime)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Visualization DataAttributeTime Datasets Visualization*DataAttribu
teTime
    Visualization*Datasets DataAttributeTime*Datasets Visualization*DataAttrib
uteTime*Datasets.
```

General Linear Model

Notes

Output Created		07-SEP-2016 10:11:29
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\EXtremum\Extremum_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 DataAttributeTime 3 Polynomial Datasets 2 Polynomial /METHOD=SSTYPE(3) /EMMEANS=TABLES (OVERALL) /EMMEANS=TABLES (Visualization) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES (DataAttributeTime) COMPARE ADJ (BONFERRONI) /EMMEANS=TABLES (Visualization*DataAttributeTime) /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=Visualization DataAttributeTime Datasets Visualization*DataAttributeTime Visualization*Datasets DataAttributeTime*Dataset

Notes

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

[DataSet1] C:\Users\Bahador\Desktop\Analysis\EXtremum\Extremum_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	DataAttributeTime	Datasets	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	DataAttributeTime	Datasets	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	1.7222	.82644	18
Bar_Nom_Num_Movie	2.0556	1.16175	18
Bar_Num_Num_Car	1.6111	1.09216	18
Bar_Num_Num_Movie	1.4444	.61570	18
Bar_Ord_Num_Car	1.7778	1.11437	18
Bar_Ord_Num_Movie	1.6667	.76696	18
Line_Nom_Num_Car	3.5556	1.04162	18
Line_Nom_Num_Movie	3.2222	1.00326	18
Line_Num_Num_Car	3.3889	.84984	18
Line_Num_Num_Movie	3.1667	.98518	18
Line_Ord_Num_Car	3.7222	.95828	18
Line_Ord_Num_Movie	3.6667	.90749	18
Pie_Nom_Num_Car	3.4444	1.38148	18
Pie_Nom_Num_Movie	3.5000	1.46528	18
Pie_Num_Num_Car	3.8889	1.23140	18
Pie_Num_Num_Movie	3.8333	1.15045	18
Pie_Ord_Num_Car	3.6667	1.18818	18
Pie_Ord_Num_Movie	3.3333	1.28338	18
Scatter_Nom_Num_Car	3.2778	1.31978	18
Scatter_Nom_Num_Movie	3.5556	1.24722	18
Scatter_Num_Num_Car	3.5556	1.04162	18
Scatter_Num_Num_Movie	3.7778	1.00326	18
Scatter_Ord_Num_Car	2.7778	1.30859	18
Scatter_Ord_Num_Movie	3.2222	1.21537	18
Table_Nom_Num_Car	3.0000	1.68034	18
Table_Nom_Num_Movie	2.6667	1.68034	18
Table_Num_Num_Car	2.5556	1.58011	18
Table_Num_Num_Movie	2.7778	1.69967	18
Table_Ord_Num_Car	3.0556	1.62597	18
Table_Ord_Num_Movie	3.1111	1.87519	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.877	25.037[b]	4.000	14.000
	Wilks' Lambda	.123	25.037[b]	4.000	14.000
	Hotelling's Trace	7.154	25.037[b]	4.000	14.000
	Roy's Largest Root	7.154	25.037[b]	4.000	14.000
DataAttributeTime	Pillai's Trace	.	.[b]	.	.
	Wilks' Lambda	.	.[b]	.	.
	Hotelling's Trace	.	.[b]	.	.
	Roy's Largest Root	.	.[b]	.	.
Datasets	Pillai's Trace	.	.[b]	.	.
	Wilks' Lambda	.	.[b]	.	.
	Hotelling's Trace	.	.[b]	.	.
	Roy's Largest Root	.	.[b]	.	.
Visualization * DataAttributeTime	Pillai's Trace	.598	1.861[b]	8.000	10.000
	Wilks' Lambda	.402	1.861[b]	8.000	10.000
	Hotelling's Trace	1.489	1.861[b]	8.000	10.000
	Roy's Largest Root	1.489	1.861[b]	8.000	10.000
Visualization * Datasets	Pillai's Trace	.227	1.027[b]	4.000	14.000
	Wilks' Lambda	.773	1.027[b]	4.000	14.000
	Hotelling's Trace	.293	1.027[b]	4.000	14.000
	Roy's Largest Root	.293	1.027[b]	4.000	14.000
DataAttributeTime * Datasets	Pillai's Trace	.	.[b]	.	.
	Wilks' Lambda	.	.[b]	.	.
	Hotelling's Trace	.	.[b]	.	.
	Roy's Largest Root	.	.[b]	.	.
Visualization * DataAttributeTime * Datasets	Pillai's Trace	.416	.890[b]	8.000	10.000
	Wilks' Lambda	.584	.890[b]	8.000	10.000
	Hotelling's Trace	.712	.890[b]	8.000	10.000
	Roy's Largest Root	.712	.890[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.000	.877	100.149
	Wilks' Lambda	.000	.877	100.149
	Hotelling's Trace	.000	.877	100.149
	Roy's Largest Root	.000	.877	100.149
DataAttributeTime	Pillai's Trace	.	.	.
	Wilks' Lambda	.	.	.
	Hotelling's Trace	.	.	.
	Roy's Largest Root	.	.	.
Datasets	Pillai's Trace	.	.	.
	Wilks' Lambda	.	.	.
	Hotelling's Trace	.	.	.
	Roy's Largest Root	.	.	.
Visualization * DataAttributeTime	Pillai's Trace	.177	.598	14.885
	Wilks' Lambda	.177	.598	14.885
	Hotelling's Trace	.177	.598	14.885
	Roy's Largest Root	.177	.598	14.885
Visualization * Datasets	Pillai's Trace	.427	.227	4.109
	Wilks' Lambda	.427	.227	4.109
	Hotelling's Trace	.427	.227	4.109
	Roy's Largest Root	.427	.227	4.109
DataAttributeTime * Datasets	Pillai's Trace	.	.	.
	Wilks' Lambda	.	.	.
	Hotelling's Trace	.	.	.
	Roy's Largest Root	.	.	.
Visualization * DataAttributeTime * Datasets	Pillai's Trace	.557	.416	7.121
	Wilks' Lambda	.557	.416	7.121
	Hotelling's Trace	.557	.416	7.121
	Roy's Largest Root	.557	.416	7.121

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
DataAttributeTime	Pillai's Trace	.
	Wilks' Lambda	.
	Hotelling's Trace	.
	Roy's Largest Root	.
Datasets	Pillai's Trace	.
	Wilks' Lambda	.
	Hotelling's Trace	.
	Roy's Largest Root	.
Visualization * DataAttributeTime	Pillai's Trace	.467
	Wilks' Lambda	.467
	Hotelling's Trace	.467
	Roy's Largest Root	.467
Visualization * Datasets	Pillai's Trace	.244
	Wilks' Lambda	.244
	Hotelling's Trace	.244
	Roy's Largest Root	.244
DataAttributeTime * Datasets	Pillai's Trace	.
	Wilks' Lambda	.
	Hotelling's Trace	.
	Roy's Largest Root	.
Visualization * DataAttributeTime * Datasets	Pillai's Trace	.229
	Wilks' Lambda	.229
	Hotelling's Trace	.229
	Roy's Largest Root	.229

a. Design: Intercept
Within Subjects Design: Visualization + DataAttributeTime + Datasets + Visualization * DataAttributeTime + Visualization * Datasets + DataAttributeTime * Datasets + Visualization * DataAttributeTime * Datasets

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	.246	21.608	9	.011	.610
DataAttributeTime	.	.	2	.	.
Datasets	.	.	0	.	.
Visualization * DataAttributeTime	.040	45.298	35	.132	.560
Visualization * Datasets	.572	8.613	9	.476	.797
DataAttributeTime * Datasets	.	.	2	.	.
Visualization * DataAttributeTime * Datasets	.004	79.833	35	.000	.397

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	.720	.250
DataAttributeTime	.	.500
Datasets	.	1.000
Visualization * DataAttributeTime	.786	.125
Visualization * Datasets	1.000	.250
DataAttributeTime * Datasets	.	.500
Visualization * DataAttributeTime * Datasets	.498	.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 + DataAttributeTime + Datasets + Visualization * DataAttributeTime + Visualization * Datasets + DataAttributeTime * Datasets + Visualization * DataAttributeTime * Datasets

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	257.630	4	64.407	8.279
	Greenhouse-Geisser	257.630	2.441	105.543	8.279
	Huynh-Feldt	257.630	2.881	89.438	8.279
	Lower-bound	257.630	1.000	257.630	8.279
Error(Visualization)	Sphericity Assumed	529.037	68	7.780	
	Greenhouse-Geisser	529.037	41.497	12.749	
	Huynh-Feldt	529.037	48.969	10.804	
	Lower-bound	529.037	17.000	31.120	
DataAttributeTime	Sphericity Assumed	.000	2	.000	.
	Greenhouse-Geisser	.000	.	.	.
	Huynh-Feldt	.000	.	.	.
	Lower-bound	.000	1.000	.000	.
Error(DataAttributeTime)	Sphericity Assumed	.000	34	.000	
	Greenhouse-Geisser	.000	.	.	
	Huynh-Feldt	.000	.	.	
	Lower-bound	.000	17.000	.000	
Datasets	Sphericity Assumed	.000	1	.000	.
	Greenhouse-Geisser	.000	.	.	.
	Huynh-Feldt	.000	.	.	.
	Lower-bound	.000	1.000	.000	.
Error(Datasets)	Sphericity Assumed	.000	17	.000	
	Greenhouse-Geisser	.000	.	.	
	Huynh-Feldt	.000	.	.	
	Lower-bound	.000	17.000	.000	
Visualization * DataAttributeTime	Sphericity Assumed	20.426	8	2.553	3.778
	Greenhouse-Geisser	20.426	4.483	4.556	3.778

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.327	33.115
	Greenhouse-Geisser	.000	.327	20.208
	Huynh-Feldt	.000	.327	23.847
	Lower-bound	.010	.327	8.279
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTime	Sphericity Assumed	.	.	.
	Greenhouse-Geisser	.	.	.
	Huynh-Feldt	.	.	.
	Lower-bound	.	.	.
Error(DataAttributeTime)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Datasets	Sphericity Assumed	.	.	.
	Greenhouse-Geisser	.	.	.
	Huynh-Feldt	.	.	.
	Lower-bound	.	.	.
Error(Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTime	Sphericity Assumed	.000	.182	30.225
	Greenhouse-Geisser	.006	.182	16.937

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	.998
	Greenhouse-Geisser	.972
	Huynh-Feldt	.986
	Lower-bound	.774
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTime	Sphericity Assumed	.
	Greenhouse-Geisser	.
	Huynh-Feldt	.
	Lower-bound	.
Error(DataAttributeTime)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Datasets	Sphericity Assumed	.
	Greenhouse-Geisser	.
	Huynh-Feldt	.
	Lower-bound	.
Error(Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTime	Sphericity Assumed	.985
	Greenhouse-Geisser	.898

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	20.426	6.287	3.249	3.778
	Lower-bound	20.426	1.000	20.426	3.778
Error (Visualization*DataAttribute Time)	Sphericity Assumed	91.907	136	.676	
	Greenhouse-Geisser	91.907	76.210	1.206	
	Huynh-Feldt	91.907	106.876	.860	
	Lower-bound	91.907	17.000	5.406	
Visualization * Datasets	Sphericity Assumed	4.148	4	1.037	1.104
	Greenhouse-Geisser	4.148	3.188	1.301	1.104
	Huynh-Feldt	4.148	4.000	1.037	1.104
	Lower-bound	4.148	1.000	4.148	1.104
Error (Visualization*Datasets)	Sphericity Assumed	63.852	68	.939	
	Greenhouse-Geisser	63.852	54.191	1.178	
	Huynh-Feldt	63.852	68.000	.939	
	Lower-bound	63.852	17.000	3.756	
DataAttributeTime * Datasets	Sphericity Assumed	.000	2	.000	.
	Greenhouse-Geisser	.000	.	.	.
	Huynh-Feldt	.000	.	.	.
	Lower-bound	.000	1.000	.000	.
Error (DataAttributeTime*Datasets)	Sphericity Assumed	.000	34	.000	
	Greenhouse-Geisser	.000	.	.	
	Huynh-Feldt	.000	.	.	
	Lower-bound	.000	17.000	.000	
Visualization * DataAttributeTime * Datasets	Sphericity Assumed	4.130	8	.516	.645
	Greenhouse-Geisser	4.130	3.174	1.301	.645
	Huynh-Feldt	4.130	3.988	1.036	.645
	Lower-bound	4.130	1.000	4.130	.645
Error (Visualization*DataAttribute Time*Datasets)	Sphericity Assumed	108.870	136	.801	
	Greenhouse-Geisser	108.870	53.962	2.018	
	Huynh-Feldt	108.870	67.796	1.606	
	Lower-bound	108.870	17.000	6.404	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.002	.182	23.753
	Lower-bound	.069	.182	3.778
Error (Visualization*DataAttribute Time)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Datasets	Sphericity Assumed	.362	.061	4.418
	Greenhouse-Geisser	.357	.061	3.521
	Huynh-Feldt	.362	.061	4.418
	Lower-bound	.308	.061	1.104
Error (Visualization*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTime * Datasets	Sphericity Assumed	.	.	.
	Greenhouse-Geisser	.	.	.
	Huynh-Feldt	.	.	.
	Lower-bound	.	.	.
Error (DataAttributeTime*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTime * Datasets	Sphericity Assumed	.739	.037	5.159
	Greenhouse-Geisser	.598	.037	2.047
	Huynh-Feldt	.632	.037	2.572
	Lower-bound	.433	.037	.645
Error (Visualization*DataAttribute Time*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
	Huynh-Feldt	.961
	Lower-bound	.450
Error (Visualization*DataAttribute Time)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Datasets	Sphericity Assumed	.330
	Greenhouse-Geisser	.290
	Huynh-Feldt	.330
	Lower-bound	.168
Error (Visualization*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTime * Datasets	Sphericity Assumed	.
	Greenhouse-Geisser	.
	Huynh-Feldt	.
	Lower-bound	.
Error (DataAttributeTime*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTime * Datasets	Sphericity Assumed	.289
	Greenhouse-Geisser	.180
	Huynh-Feldt	.200
	Lower-bound	.118
Error (Visualization*DataAttribute Time*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTime	Datasets	Type III Sum of Squares	df
Visualization	Linear			52.448	1
	Quadratic			184.381	1
	Cubic			19.200	1
	Order 4			1.601	1
Error(Visualization)	Linear			164.885	17
	Quadratic			128.524	17
	Cubic			107.467	17
	Order 4			128.161	17
DataAttributeTime		Linear		.000	1
		Quadratic		2.842E-14	1
Error(DataAttributeTime)		Linear		.000	17
		Quadratic		1.421E-14	17
Datasets			Linear	.000	1
Error(Datasets)			Linear	.000	17
Visualization * DataAttributeTime	Linear	Linear		.022	1
		Quadratic		1.157	1
	Quadratic	Linear		.063	1
		Quadratic		7.440	1
	Cubic	Linear		6.235	1
		Quadratic		5.104	1
	Order 4	Linear		.124	1
		Quadratic		.279	1
Error (Visualization*DataAttributeTime)	Linear	Linear		6.328	17
		Quadratic		4.559	17
	Quadratic	Linear		11.401	17
		Quadratic		20.762	17
	Cubic	Linear		14.790	17
		Quadratic		10.304	17
	Order 4	Linear		11.037	17
		Quadratic		12.727	17
Visualization * Datasets	Linear		Linear	.533	1
	Quadratic		Linear	.024	1
	Cubic		Linear	3.115	1
	Order 4		Linear	.476	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTime	Datasets	Mean Square	F
Visualization	Linear			52.448	5.408
	Quadratic			184.381	24.388
	Cubic			19.200	3.037
	Order 4			1.601	.212
Error(Visualization)	Linear			9.699	
	Quadratic			7.560	
	Cubic			6.322	
	Order 4			7.539	
DataAttributeTime		Linear		.000	.
		Quadratic		2.842E-14	34.000
Error(DataAttributeTime)		Linear		.000	
		Quadratic		8.359E-16	
Datasets			Linear	.000	.
Error(Datasets)			Linear	.000	
Visualization * DataAttributeTime	Linear	Linear		.022	.060
		Quadratic		1.157	4.316
	Quadratic	Linear		.063	.095
		Quadratic		7.440	6.092
	Cubic	Linear		6.235	7.166
		Quadratic		5.104	8.421
	Order 4	Linear		.124	.191
		Quadratic		.279	.373
Error (Visualization*DataAttributeTime)	Linear	Linear		.372	
		Quadratic		.268	
	Quadratic	Linear		.671	
		Quadratic		1.221	
	Cubic	Linear		.870	
		Quadratic		.606	
	Order 4	Linear		.649	
		Quadratic		.749	
Visualization * Datasets	Linear		Linear	.533	.599
	Quadratic		Linear	.024	.024
	Cubic		Linear	3.115	2.804
	Order 4		Linear	.476	.618

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTime	Datasets	Sig.	Partial Eta Squared
Visualization	Linear			.033	.241
	Quadratic			.000	.589
	Cubic			.099	.152
	Order 4			.651	.012
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeTime		Linear		.	.
		Quadratic		.000	.667
Error(DataAttributeTime)		Linear			
		Quadratic			
Datasets			Linear	.	.
Error(Datasets)			Linear		
Visualization * DataAttributeTime	Linear	Linear		.810	.003
		Quadratic		.053	.202
	Quadratic	Linear		.762	.006
		Quadratic		.024	.264
	Cubic	Linear		.016	.297
		Quadratic		.010	.331
	Order 4	Linear		.668	.011
		Quadratic		.549	.021
Error (Visualization*DataAttributeTime)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Datasets	Linear		Linear	.450	.034
	Quadratic		Linear	.878	.001
	Cubic		Linear	.112	.142
	Order 4		Linear	.443	.035

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTime	Datasets	Noncent. Parameter
Visualization	Linear			5.408
	Quadratic			24.388
	Cubic			3.037
	Order 4			.212
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTime		Linear		.
		Quadratic		34.000
Error(DataAttributeTime)		Linear		
		Quadratic		
Datasets			Linear	.
Error(Datasets)			Linear	
Visualization * DataAttributeTime	Linear	Linear		.060
		Quadratic		4.316
	Quadratic	Linear		.095
		Quadratic		6.092
	Cubic	Linear		7.166
		Quadratic		8.421
	Order 4	Linear		.191
		Quadratic		.373
Error (Visualization*DataAttributeTime)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Datasets	Linear		Linear	.599
	Quadratic		Linear	.024
	Cubic		Linear	2.804
	Order 4		Linear	.618

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTime	Datasets	Observed Power[a]
Visualization	Linear			.592
	Quadratic			.996
	Cubic			.376
	Order 4			.072
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTime		Linear		.
		Quadratic		1.000
Error(DataAttributeTime)		Linear		
		Quadratic		
Datasets			Linear	.
Error(Datasets)			Linear	
Visualization * DataAttributeTime	Linear	Linear		.056
		Quadratic		.500
	Quadratic	Linear		.060
		Quadratic		.643
	Cubic	Linear		.713
		Quadratic		.781
	Order 4	Linear		.070
		Quadratic		.089
Error (Visualization*DataAttribute Time)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Datasets	Linear		Linear	.113
	Quadratic		Linear	.052
	Cubic		Linear	.352
	Order 4		Linear	.115

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTime	Datasets	Type III Sum of Squares	df
Error (Visualization*Datasets)	Linear		Linear	15.133	17
	Quadratic		Linear	16.738	17
	Cubic		Linear	18.885	17
	Order 4		Linear	13.095	17
DataAttributeTime * Datasets		Linear	Linear	.000	1
		Quadratic	Linear	.000	1
Error (DataAttributeTime*Datasets)		Linear	Linear	.000	17
		Quadratic	Linear	.000	17
Visualization * DataAttributeTime * Datasets	Linear	Linear	Linear	1.089	1
		Quadratic	Linear	.817	1
	Quadratic	Linear	Linear	.016	1
		Quadratic	Linear	.012	1
	Cubic	Linear	Linear	.501	1
		Quadratic	Linear	.445	1
	Order 4	Linear	Linear	1.116	1
		Quadratic	Linear	.134	1
Error (Visualization*DataAttributeTime*Datasets)	Linear	Linear	Linear	4.361	17
		Quadratic	Linear	13.667	17
	Quadratic	Linear	Linear	9.091	17
		Quadratic	Linear	14.833	17
	Cubic	Linear	Linear	5.924	17
		Quadratic	Linear	9.030	17
	Order 4	Linear	Linear	42.902	17
		Quadratic	Linear	9.063	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTime	Datasets	Mean Square	F
Error (Visualization*Datasets)	Linear		Linear	.890	
	Quadratic		Linear	.985	
	Cubic		Linear	1.111	
	Order 4		Linear	.770	
DataAttributeTime * Datasets		Linear	Linear	.000	.
		Quadratic	Linear	.000	.
Error (DataAttributeTime*Datasets)		Linear	Linear	.000	
		Quadratic	Linear	.000	
Visualization * DataAttributeTime * Datasets	Linear	Linear	Linear	1.089	4.245
		Quadratic	Linear	.817	1.016
	Quadratic	Linear	Linear	.016	.030
		Quadratic	Linear	.012	.014
	Cubic	Linear	Linear	.501	1.439
		Quadratic	Linear	.445	.838
	Order 4	Linear	Linear	1.116	.442
		Quadratic	Linear	.134	.251
Error (Visualization*DataAttributeTime*Datasets)	Linear	Linear	Linear	.257	
		Quadratic	Linear	.804	
	Quadratic	Linear	Linear	.535	
		Quadratic	Linear	.873	
	Cubic	Linear	Linear	.348	
		Quadratic	Linear	.531	
	Order 4	Linear	Linear	2.524	
		Quadratic	Linear	.533	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTime	Datasets	Sig.	Partial Eta Squared
Error (Visualization*Datasets)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributeTime * Datasets		Linear	Linear	.	.
		Quadratic	Linear	.	.
Error (DataAttributeTime*Datasets)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributeTime * Datasets	Linear	Linear	Linear	.055	.200
		Quadratic	Linear	.328	.056
	Quadratic	Linear	Linear	.865	.002
		Quadratic	Linear	.908	.001
	Cubic	Linear	Linear	.247	.078
		Quadratic	Linear	.373	.047
	Order 4	Linear	Linear	.515	.025
		Quadratic	Linear	.623	.015
Error (Visualization*DataAttributeTime*Datasets)	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	DataAttributeTime	Datasets	Noncent. Parameter
Error (Visualization*Datasets)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTime * Datasets		Linear	Linear	.
		Quadratic	Linear	.
Error (DataAttributeTime*Datasets)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTime * Datasets	Linear	Linear	Linear	4.245
		Quadratic	Linear	1.016
	Quadratic	Linear	Linear	.030
		Quadratic	Linear	.014
	Cubic	Linear	Linear	1.439
		Quadratic	Linear	.838
	Order 4	Linear	Linear	.442
		Quadratic	Linear	.251
Error (Visualization*DataAttributeTime*Datasets)	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	DataAttributeTime	Datasets	Observed Power[a]
Error (Visualization*Datasets)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTime * Datasets		Linear	Linear	.
		Quadratic	Linear	.
Error (DataAttributeTime*Datasets)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTime * Datasets	Linear	Linear	Linear	.493
		Quadratic	Linear	.158
	Quadratic	Linear	Linear	.053
		Quadratic	Linear	.051
	Cubic	Linear	Linear	.205
		Quadratic	Linear	.139
	Order 4	Linear	Linear	.096
		Quadratic	Linear	.076
Error (Visualization*DataAttributeTime*Datasets)	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	4860.000	1	4860.000	.	.	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

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

2. Visualization

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
Visualization	Mean	Std. Error	Lower Bound	Upper Bound
1	1.713	.160	1.374	2.051
2	3.454	.155	3.127	3.780
3	3.611	.241	3.103	4.119
4	3.361	.226	2.884	3.839
5	2.861	.360	2.102	3.620

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-1.741*	.191	.000	-2.355
	3	-1.898*	.306	.000	-2.884
	4	-1.648*	.244	.000	-2.434
	5	-1.148	.477	.277	-2.685
2	1	1.741*	.191	.000	1.126
	3	-.157	.314	1.000	-1.171
	4	.093	.263	1.000	-.755
	5	.593	.451	1.000	-.861
3	1	1.898*	.306	.000	.913
	2	.157	.314	1.000	-.856
	4	.250	.385	1.000	-.992
	5	.750	.487	1.000	-.818
4	1	1.648*	.244	.000	.862
	2	-.093	.263	1.000	-.940
	3	-.250	.385	1.000	-1.492
	5	.500	.517	1.000	-1.165
5	1	1.148	.477	.277	-.389
	2	-.593	.451	1.000	-2.046
	3	-.750	.487	1.000	-2.318
	4	-.500	.517	1.000	-2.165

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	-1.126
	3	-.913
	4	-.862
	5	.389
2	1	2.355
	3	.856
	4	.940
	5	2.046
3	1	2.884
	2	1.171
	4	1.492
	5	2.318
4	1	2.434
	2	.755
	3	.992
	5	2.165
5	1	2.685
	2	.861
	3	.818
	4	1.165

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	.877	25.037[a]	4.000	14.000	.000	.877
Wilks' lambda	.123	25.037[a]	4.000	14.000	.000	.877
Hotelling's trace	7.154	25.037[a]	4.000	14.000	.000	.877
Roy's largest root	7.154	25.037[a]	4.000	14.000	.000	.877

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	100.149	1.000
Wilks' lambda	100.149	1.000
Hotelling's trace	100.149	1.000
Roy's largest root	100.149	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. DataAttributeTime

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
DataAttributeTime	Mean	Std. Error	Lower Bound	Upper Bound
1	3.000	.000	3.000	3.000
2	3.000	.000	3.000	3.000
3	3.000	.000	3.000	3.000

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTime	(J) DataAttributeTime	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence [a]... Lower Bound
1	2	1.110E-16	.000	1.000	-4.523E-9
	3	.000	.000	1.000	-4.523E-9
2	1	-1.110E-16	.000	1.000	-4.523E-9
	3	-1.110E-16	.000	.	-1.110E-16
3	1	.000	.000	1.000	-4.523E-9
	2	1.110E-16	.000	.	1.110E-16

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTime	(J) DataAttributeTime	95% Confidence Interval for [a]... Upper Bound
1	2	4.523E-9
	3	4.523E-9
2	1	4.523E-9
	3	-1.110E-16
3	1	4.523E-9
	2	1.110E-16

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	.000	.000[a]	1.000	17.000	1.000	.000
Wilks' lambda	1.000	.000[a]	1.000	17.000	1.000	.000
Hotelling's trace	.000	.000[a]	1.000	17.000	1.000	.000
Roy's largest root	.000	.000[a]	1.000	17.000	1.000	.000

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	.000	.050
Wilks' lambda	.000	.050
Hotelling's trace	.000	.050
Roy's largest root	.000	.050

Each F tests the multivariate effect of DataAttributeTime. 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 * DataAttributeTime

Measure: MEASURE_1

				95% Confidence Interval	
Visualization	DataAttributeTime	Mean	Std. Error	Lower Bound	Upper Bound
1	1	1.889	.200	1.466	2.312
	2	1.528	.169	1.171	1.884
	3	1.722	.186	1.329	2.115
2	1	3.389	.200	2.966	3.812
	2	3.278	.168	2.924	3.632
	3	3.694	.157	3.363	4.026
3	1	3.472	.281	2.878	4.066
	2	3.861	.249	3.337	4.385
	3	3.500	.262	2.947	4.053
4	1	3.417	.287	2.812	4.021
	2	3.667	.214	3.215	4.118
	3	3.000	.259	2.454	3.546
5	1	2.833	.390	2.011	3.656
	2	2.667	.345	1.938	3.395
	3	3.083	.378	2.287	3.880