```
GET
  FILE='C:\Users\Bahador\Desktop\Analysis\EXtremum\Extremum_Time.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 DataAttributesType 3 Polynomial Dataset
 2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(DataAttributesType) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Visualization*DataAttributesType)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Visualization DataAttributesType Dataset Visualization*DataAttribu
tesType
    Visualization*Dataset DataAttributesType*Dataset Visualization*DataAttribu
tesType*Dataset.
```

General Linear Model

Notes

Output Created		07-SEP-2016 10:13:53
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\EXtremum\Extremum_Time.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 DataAttributesType 3 Polynomial Dataset 2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(DataAttributesType) COMPARE ADJ (BONFERRONI)
  /EMMEANS=TABLES(Visualization*DataAttributesType)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)

/WSDESIGN=Visualization DataAttributesType Dataset Visualization*DataAttributesType
   Visualization*Dataset DataAttributesType*Datas |

Notes

Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.03

[DataSet1] C:\Users\Bahador\Desktop\Analysis\EXtremum\Extremum_Time.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	DataAttributesType	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	DataAttributesType	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	8.1667	3.56865	18
Bar_Nom_Num_Movie	11.6667	5.22438	18
Bar_Num_Num_Car	17.8333	8.82010	18
Bar_Num_Num_Movie	14.6111	5.50015	18
Bar_Ord_Num_Car	10.7778	5.84662	18
Bar_Ord_Num_Movie	9.7778	5.21937	18
Line_Nom_Num_Car	15.4444	16.01552	18
Line_Nom_Num_Movie	12.5556	8.80656	18
Line_Num_Num_Car	14.0556	8.31351	18
Line_Num_Num_Movie	14.3889	8.70523	18
Line_Ord_Num_Car	17.5000	16.59288	18
Line_Ord_Num_Movie	13.2222	12.98667	18
Pie_Nom_Num_Car	13.1667	4.66842	18
Pie_Nom_Num_Movie	18.7222	11.24490	18
Pie_Num_Num_Car	23.9444	19.77066	18
Pie_Num_Num_Movie	22.2778	8.98892	18
Pie_Ord_Num_Car	14.4444	10.15308	18
Pie_Ord_Num_Movie	13.7222	6.79797	18
Scatter_Nom_Num_Car	15.4444	12.95795	18
Scatter_Nom_Num_Movie	12.9444	13.33934	18
Scatter_Num_Num_Car	14.3889	10.18152	18
Scatter_Num_Num_Movie	17.4444	11.43895	18
Scatter_Ord_Num_Car	13.6111	9.31879	18
Scatter_Ord_Num_Movie	10.5556	4.31444	18
Table_Nom_Num_Car	12.1667	7.46167	18
Table_Nom_Num_Movie	11.5556	4.13340	18
Table_Num_Num_Car	24.0556	9.56385	18
Table_Num_Num_Movie	26.0000	9.76187	18
Table_Ord_Num_Car	15.9444	9.47115	18
Table_Ord_Num_Movie	15.5000	16.52538	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.583	4.895[b]	4.000	14.000
	Wilks' Lambda	.417	4.895[b]	4.000	14.000
	Hotelling's Trace	1.399	4.895[b]	4.000	14.000
	Roy's Largest Root	1.399	4.895[b]	4.000	14.000
DataAttributesType	Pillai's Trace	.684	17.338[b]	2.000	16.000
	Wilks' Lambda	.316	17.338[b]	2.000	16.000
	Hotelling's Trace	2.167	17.338[b]	2.000	16.000
	Roy's Largest Root	2.167	17.338[b]	2.000	16.000
Dataset	Pillai's Trace	.028	.491[b]	1.000	17.000
	Wilks' Lambda	.972	.491[b]	1.000	17.000
	Hotelling's Trace	.029	.491[b]	1.000	17.000
	Roy's Largest Root	.029	.491[b]	1.000	17.000
Visualization * DataAttributesType	Pillai's Trace	.842	6.685[b]	8.000	10.000
	Wilks' Lambda	.158	6.685[b]	8.000	10.000
	Hotelling's Trace	5.348	6.685[b]	8.000	10.000
	Roy's Largest Root	5.348	6.685[b]	8.000	10.000
Visualization * Dataset	Pillai's Trace	.139	.566[b]	4.000	14.000
	Wilks' Lambda	.861	.566[b]	4.000	14.000
	Hotelling's Trace	.162	.566[b]	4.000	14.000
	Roy's Largest Root	.162	.566[b]	4.000	14.000
DataAttributesType * Dataset	Pillai's Trace	.096	.846[b]	2.000	16.000
	Wilks' Lambda	.904	.846[b]	2.000	16.000
	Hotelling's Trace	.106	.846[b]	2.000	16.000
	Roy's Largest Root	.106	.846[b]	2.000	16.000
Visualization * DataAttributesType * Dataset	Pillai's Trace	.578	1.713[b]	8.000	10.000
	Wilks' Lambda	.422	1.713[b]	8.000	10.000
	Hotelling's Trace	1.370	1.713[b]	8.000	10.000
	Roy's Largest Root	1.370	1.713[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.011	.583	19.580
	Wilks' Lambda	.011	.583	19.580
	Hotelling's Trace	.011	.583	19.580
	Roy's Largest Root	.011	.583	19.580
DataAttributesType	Pillai's Trace	.000	.684	34.675
	Wilks' Lambda	.000	.684	34.675
	Hotelling's Trace	.000	.684	34.675
	Roy's Largest Root	.000	.684	34.675
Dataset	Pillai's Trace	.493	.028	.491
	Wilks' Lambda	.493	.028	.491
	Hotelling's Trace	.493	.028	.491
	Roy's Largest Root	.493	.028	.491
Visualization * DataAttributesType	Pillai's Trace	.004	.842	53.484
	Wilks' Lambda	.004	.842	53.484
	Hotelling's Trace	.004	.842	53.484
	Roy's Largest Root	.004	.842	53.484
Visualization * Dataset	Pillai's Trace	.692	.139	2.263
	Wilks' Lambda	.692	.139	2.263
	Hotelling's Trace	.692	.139	2.263
	Roy's Largest Root	.692	.139	2.263
DataAttributesType * Dataset	Pillai's Trace	.448	.096	1.691
	Wilks' Lambda	.448	.096	1.691
	Hotelling's Trace	.448	.096	1.691
	Roy's Largest Root	.448	.096	1.691
Visualization * DataAttributesType * Dataset	Pillai's Trace	.209	.578	13.702
	Wilks' Lambda	.209	.578	13.702
	Hotelling's Trace	.209	.578	13.702
	Roy's Largest Root	.209	.578	13.702

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	.866
	Wilks' Lambda	.866
	Hotelling's Trace	.866
	Roy's Largest Root	.866
DataAttributesType	Pillai's Trace	.999
	Wilks' Lambda	.999
	Hotelling's Trace	.999
	Roy's Largest Root	.999
Dataset	Pillai's Trace	.101
	Wilks' Lambda	.101
	Hotelling's Trace	.101
	Roy's Largest Root	.101
Visualization * DataAttributesType	Pillai's Trace	.976
	Wilks' Lambda	.976
	Hotelling's Trace	.976
	Roy's Largest Root	.976
Visualization * Dataset	Pillai's Trace	.148
	Wilks' Lambda	.148
	Hotelling's Trace	.148
	Roy's Largest Root	.148
DataAttributesType * Dataset	Pillai's Trace	.170
	Wilks' Lambda	.170
	Hotelling's Trace	.170
	Roy's Largest Root	.170
Visualization * DataAttributesType * Dataset	Pillai's Trace	.432
	Wilks' Lambda	.432
	Hotelling's Trace	.432
	Roy's Largest Root	.432

a. Design: Intercept
   Within Subjects Design: Visualization + DataAttributesType + Dataset + Visualization * DataAttributesType + Visualization * Dataset + DataAttributesType * 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	.556	9.046	9	.436	.793
DataAttributesType	.908	1.540	2	.463	.916
Dataset	1.000	.000	0	.	1.000
Visualization * DataAttributesType	.003	83.228	35	.000	.441
Visualization * Dataset	.099	35.580	9	.000	.550
DataAttributesType * Dataset	.913	1.458	2	.482	.920
Visualization * DataAttributesType * Dataset	.002	88.713	35	.000	.391

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	.996	.250
DataAttributesType	1.000	.500
Dataset	1.000	1.000
Visualization * DataAttributesType	.570	.125
Visualization * Dataset	.635	.250
DataAttributesType * Dataset	1.000	.500
Visualization * DataAttributesType * Dataset	.489	.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 + DataAttributesType + Dataset + Visualization * DataAttributesType + Visualization * Dataset + DataAttributesType * 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	2471.859	4	617.965	7.139
	Greenhouse-Geisser	2471.859	3.172	779.185	7.139
	Huynh-Feldt	2471.859	3.985	620.297	7.139
	Lower-bound	2471.859	1.000	2471.859	7.139
Error(Visualization)	Sphericity Assumed	5886.474	68	86.566	
	Greenhouse-Geisser	5886.474	53.930	109.150	
	Huynh-Feldt	5886.474	67.744	86.892	
	Lower-bound	5886.474	17.000	346.263	
DataAttributesType	Sphericity Assumed	3713.048	2	1856.524	21.924
	Greenhouse-Geisser	3713.048	1.832	2026.837	21.924
	Huynh-Feldt	3713.048	2.000	1856.524	21.924
	Lower-bound	3713.048	1.000	3713.048	21.924
Error(DataAttributesType)	Sphericity Assumed	2879.085	34	84.679	
	Greenhouse-Geisser	2879.085	31.143	92.447	
	Huynh-Feldt	2879.085	34.000	84.679	
	Lower-bound	2879.085	17.000	169.358	
Dataset	Sphericity Assumed	21.600	1	21.600	.491
	Greenhouse-Geisser	21.600	1.000	21.600	.491
	Huynh-Feldt	21.600	1.000	21.600	.491
	Lower-bound	21.600	1.000	21.600	.491
Error(Dataset)	Sphericity Assumed	748.133	17	44.008	
	Greenhouse-Geisser	748.133	17.000	44.008	
	Huynh-Feldt	748.133	17.000	44.008	
	Lower-bound	748.133	17.000	44.008	
Visualization * DataAttributesType	Sphericity Assumed	2427.730	8	303.466	3.317
	Greenhouse-Geisser	2427.730	3.527	688.320	3.317

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.296	28.555
	Greenhouse-Geisser	.000	.296	22.646
	Huynh-Feldt	.000	.296	28.447
	Lower-bound	.016	.296	7.139
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributesType	Sphericity Assumed	.000	.563	43.849
	Greenhouse-Geisser	.000	.563	40.164
	Huynh-Feldt	.000	.563	43.849
	Lower-bound	.000	.563	21.924
Error(DataAttributesType)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Dataset	Sphericity Assumed	.493	.028	.491
	Greenhouse-Geisser	.493	.028	.491
	Huynh-Feldt	.493	.028	.491
	Lower-bound	.493	.028	.491
Error(Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributesType	Sphericity Assumed	.002	.163	26.537
	Greenhouse-Geisser	.020	.163	11.699

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	.993
	Greenhouse-Geisser	.979
	Huynh-Feldt	.993
	Lower-bound	.712
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributesType	Sphericity Assumed	1.000
	Greenhouse-Geisser	1.000
	Huynh-Feldt	1.000
	Lower-bound	.993
Error(DataAttributesType)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Dataset	Sphericity Assumed	.101
	Greenhouse-Geisser	.101
	Huynh-Feldt	.101
	Lower-bound	.101
Error(Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributesType	Sphericity Assumed	.969
	Greenhouse-Geisser	.776

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	2427.730	4.564	531.964	3.317
	Lower-bound	2427.730	1.000	2427.730	3.317
Error (Visualization*DataAttributesType)	Sphericity Assumed	12442.137	136	91.486	
	Greenhouse-Geisser	12442.137	59.960	207.509	
	Huynh-Feldt	12442.137	77.583	160.372	
	Lower-bound	12442.137	17.000	731.890	
Visualization * Dataset	Sphericity Assumed	171.252	4	42.813	.768
	Greenhouse-Geisser	171.252	2.199	77.888	.768
	Huynh-Feldt	171.252	2.539	67.456	.768
	Lower-bound	171.252	1.000	171.252	.768
Error(Visualization*Dataset)	Sphericity Assumed	3792.681	68	55.775	
	Greenhouse-Geisser	3792.681	37.378	101.469	
	Huynh-Feldt	3792.681	43.159	87.878	
	Lower-bound	3792.681	17.000	223.099	
DataAttributesType * Dataset	Sphericity Assumed	158.011	2	79.006	.715
	Greenhouse-Geisser	158.011	1.840	85.888	.715
	Huynh-Feldt	158.011	2.000	79.006	.715
	Lower-bound	158.011	1.000	158.011	.715
Error (DataAttributesType*Dataset)	Sphericity Assumed	3755.056	34	110.443	
	Greenhouse-Geisser	3755.056	31.275	120.064	
	Huynh-Feldt	3755.056	34.000	110.443	
	Lower-bound	3755.056	17.000	220.886	
Visualization * DataAttributesType * Dataset	Sphericity Assumed	673.581	8	84.198	.894
	Greenhouse-Geisser	673.581	3.124	215.596	.894
	Huynh-Feldt	673.581	3.909	172.326	.894
	Lower-bound	673.581	1.000	673.581	.894
Error (Visualization*DataAttributesType*Dataset)	Sphericity Assumed	12810.685	136	94.196	
	Greenhouse-Geisser	12810.685	53.113	241.198	
	Huynh-Feldt	12810.685	66.449	192.789	
	Lower-bound	12810.685	17.000	753.570	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.011	.163	15.138
	Lower-bound	.086	.163	3.317
Error (Visualization*DataAttributesType)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Dataset	Sphericity Assumed	.550	.043	3.070
	Greenhouse-Geisser	.483	.043	1.688
	Huynh-Feldt	.499	.043	1.949
	Lower-bound	.393	.043	.768
Error(Visualization*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributesType * Dataset	Sphericity Assumed	.496	.040	1.431
	Greenhouse-Geisser	.486	.040	1.316
	Huynh-Feldt	.496	.040	1.431
	Lower-bound	.409	.040	.715
Error (DataAttributesType*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributesType * Dataset	Sphericity Assumed	.524	.050	7.151
	Greenhouse-Geisser	.454	.050	2.793
	Huynh-Feldt	.471	.050	3.494
	Lower-bound	.358	.050	.894
Error (Visualization*DataAttributesType*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
	Huynh-Feldt	.855
	Lower-bound	.405
Error (Visualization*DataAttributesType)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Dataset	Sphericity Assumed	.234
	Greenhouse-Geisser	.177
	Huynh-Feldt	.188
	Lower-bound	.131
Error(Visualization*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributesType * Dataset	Sphericity Assumed	.161
	Greenhouse-Geisser	.156
	Huynh-Feldt	.161
	Lower-bound	.126
Error (DataAttributesType*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributesType * Dataset	Sphericity Assumed	.403
	Greenhouse-Geisser	.237
	Huynh-Feldt	.266
	Lower-bound	.145
Error (Visualization*DataAttributesType*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributesType	Dataset	Type III Sum of Squares	df
Visualization	Linear			1153.200	1
	Quadratic			168.000	1
	Cubic			431.934	1
	Order 4			718.725	1
Error(Visualization)	Linear			1423.100	17
	Quadratic			1267.595	17
	Cubic			1213.682	17
	Order 4			1982.096	17
DataAttributesType		Linear		9.344	1
		Quadratic		3703.704	1
Error(DataAttributesType)		Linear		1073.056	17
		Quadratic		1806.030	17
Dataset			Linear	21.600	1
Error(Dataset)			Linear	748.133	17
Visualization * DataAttributesType	Linear	Linear		22.401	1
		Quadratic		434.704	1
	Quadratic	Linear		214.509	1
		Quadratic		450.360	1
	Cubic	Linear		196.356	1
		Quadratic		4.446	1
	Order 4	Linear		4.001	1
		Quadratic		1100.952	1
Error (Visualization*DataAttributesType)	Linear	Linear		1197.624	17
		Quadratic		1673.971	17
	Quadratic	Linear		1698.295	17
		Quadratic		879.670	17
	Cubic	Linear		2617.244	17
		Quadratic		1119.087	17
	Order 4	Linear		1095.671	17
		Quadratic		2160.576	17
Visualization * Dataset	Linear		Linear	17.126	1
	Quadratic		Linear	2.381	1
	Cubic		Linear	14.934	1
	Order 4		Linear	136.811	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributesType	Dataset	Mean Square	F
Visualization	Linear			1153.200	13.776
	Quadratic			168.000	2.253
	Cubic			431.934	6.050
	Order 4			718.725	6.164
Error(Visualization)	Linear			83.712	
	Quadratic			74.564	
	Cubic			71.393	
	Order 4			116.594	
DataAttributesType		Linear		9.344	.148
		Quadratic		3703.704	34.863
Error(DataAttributesType)		Linear		63.121	
		Quadratic		106.237	
Dataset			Linear	21.600	.491
Error(Dataset)			Linear	44.008	
Visualization * DataAttributesType	Linear	Linear		22.401	.318
		Quadratic		434.704	4.415
	Quadratic	Linear		214.509	2.147
		Quadratic		450.360	8.703
	Cubic	Linear		196.356	1.275
		Quadratic		4.446	.068
	Order 4	Linear		4.001	.062
		Quadratic		1100.952	8.663
Error (Visualization*DataAttributesType)	Linear	Linear		70.448	
		Quadratic		98.469	
	Quadratic	Linear		99.900	
		Quadratic		51.745	
	Cubic	Linear		153.956	
		Quadratic		65.829	
	Order 4	Linear		64.451	
		Quadratic		127.093	
Visualization * Dataset	Linear		Linear	17.126	.657
	Quadratic		Linear	2.381	.042
	Cubic		Linear	14.934	.391
	Order 4		Linear	136.811	1.348

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributesType	Dataset	Sig.	Partial Eta Squared
Visualization	Linear			.002	.448
	Quadratic			.152	.117
	Cubic			.025	.262
	Order 4			.024	.266
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributesType		Linear		.705	.009
		Quadratic		.000	.672
Error(DataAttributesType)		Linear			
		Quadratic			
Dataset			Linear	.493	.028
Error(Dataset)			Linear		
Visualization * DataAttributesType	Linear	Linear		.580	.018
		Quadratic		.051	.206
	Quadratic	Linear		.161	.112
		Quadratic		.009	.339
	Cubic	Linear		.274	.070
		Quadratic		.798	.004
	Order 4	Linear		.806	.004
		Quadratic		.009	.338
Error (Visualization*DataAttributesType)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Dataset	Linear		Linear	.429	.037
	Quadratic		Linear	.841	.002
	Cubic		Linear	.540	.022
	Order 4		Linear	.262	.073

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributesType	Dataset	Noncent. Parameter
Visualization	Linear			13.776
	Quadratic			2.253
	Cubic			6.050
	Order 4			6.164
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributesType		Linear		.148
		Quadratic		34.863
Error(DataAttributesType)		Linear		
		Quadratic		
Dataset			Linear	.491
Error(Dataset)			Linear	
Visualization * DataAttributesType	Linear	Linear		.318
		Quadratic		4.415
	Quadratic	Linear		2.147
		Quadratic		8.703
	Cubic	Linear		1.275
		Quadratic		.068
	Order 4	Linear		.062
		Quadratic		8.663
Error (Visualization*DataAttributesType)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.657
	Quadratic		Linear	.042
	Cubic		Linear	.391
	Order 4		Linear	1.348

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributesType	Dataset	Observed Power[a]
Visualization	Linear			.938
	Quadratic			.294
	Cubic			.640
	Order 4			.648
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributesType		Linear		.065
		Quadratic		1.000
Error(DataAttributesType)		Linear		
		Quadratic		
Dataset			Linear	.101
Error(Dataset)			Linear	
Visualization * DataAttributesType	Linear	Linear		.083
		Quadratic		.509
	Quadratic	Linear		.282
		Quadratic		.794
	Cubic	Linear		.187
		Quadratic		.057
	Order 4	Linear		.056
		Quadratic		.792
Error (Visualization*DataAttributesType)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.119
	Quadratic		Linear	.054
	Cubic		Linear	.091
	Order 4		Linear	.195

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributesType	Dataset	Type III Sum of Squares	df
Error(Visualization*Dataset)	Linear		Linear	443.307	17
	Quadratic		Linear	974.929	17
	Cubic		Linear	649.216	17
	Order 4		Linear	1725.230	17
DataAttributesType * Dataset		Linear	Linear	141.878	1
		Quadratic	Linear	16.133	1
Error (DataAttributesType*Dataset)		Linear	Linear	1367.322	17
		Quadratic	Linear	2387.733	17
Visualization * DataAttributesType * Dataset	Linear	Linear	Linear	46.513	1
		Quadratic	Linear	149.889	1
	Quadratic	Linear	Linear	10.938	1
		Quadratic	Linear	13.360	1
	Cubic	Linear	Linear	4.050	1
		Quadratic	Linear	5.807	1
	Order 4	Linear	Linear	75.289	1
		Quadratic	Linear	367.736	1
Error (Visualization*DataAttributesType*Dataset)	Linear	Linear	Linear	950.012	17
		Quadratic	Linear	642.752	17
	Quadratic	Linear	Linear	1141.366	17
		Quadratic	Linear	1375.313	17
	Cubic	Linear	Linear	4170.050	17
		Quadratic	Linear	1550.093	17
	Order 4	Linear	Linear	949.083	17
		Quadratic	Linear	2032.017	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributesType	Dataset	Mean Square	F
Error(Visualization*Dataset)	Linear		Linear	26.077	
	Quadratic		Linear	57.349	
	Cubic		Linear	38.189	
	Order 4		Linear	101.484	
DataAttributesType * Dataset		Linear	Linear	141.878	1.764
		Quadratic	Linear	16.133	.115
Error (DataAttributesType*Dataset)		Linear	Linear	80.431	
		Quadratic	Linear	140.455	
Visualization * DataAttributesType * Dataset	Linear	Linear	Linear	46.513	.832
		Quadratic	Linear	149.889	3.964
	Quadratic	Linear	Linear	10.938	.163
		Quadratic	Linear	13.360	.165
	Cubic	Linear	Linear	4.050	.017
		Quadratic	Linear	5.807	.064
	Order 4	Linear	Linear	75.289	1.349
		Quadratic	Linear	367.736	3.077
Error (Visualization*DataAttributesType*Dataset)	Linear	Linear	Linear	55.883	
		Quadratic	Linear	37.809	
	Quadratic	Linear	Linear	67.139	
		Quadratic	Linear	80.901	
	Cubic	Linear	Linear	245.297	
		Quadratic	Linear	91.182	
	Order 4	Linear	Linear	55.828	
		Quadratic	Linear	119.530	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributesType	Dataset	Sig.	Partial Eta Squared
Error(Visualization*Dataset)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributesType * Dataset		Linear	Linear	.202	.094
		Quadratic	Linear	.739	.007
Error (DataAttributesType*Dataset)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributesType * Dataset	Linear	Linear	Linear	.374	.047
		Quadratic	Linear	.063	.189
	Quadratic	Linear	Linear	.692	.009
		Quadratic	Linear	.690	.010
	Cubic	Linear	Linear	.899	.001
		Quadratic	Linear	.804	.004
	Order 4	Linear	Linear	.262	.073
		Quadratic	Linear	.097	.153
Error (Visualization*DataAttributesType*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	DataAttributesType	Dataset	Noncent. Parameter
Error(Visualization*Dataset)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributesType * Dataset		Linear	Linear	1.764
		Quadratic	Linear	.115
Error (DataAttributesType*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributesType * Dataset	Linear	Linear	Linear	.832
		Quadratic	Linear	3.964
	Quadratic	Linear	Linear	.163
		Quadratic	Linear	.165
	Cubic	Linear	Linear	.017
		Quadratic	Linear	.064
	Order 4	Linear	Linear	1.349
		Quadratic	Linear	3.077
Error (Visualization*DataAttributesType*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	DataAttributesType	Dataset	Observed Power[a]
Error(Visualization*Dataset)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributesType * Dataset		Linear	Linear	.241
		Quadratic	Linear	.062
Error (DataAttributesType*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributesType * Dataset	Linear	Linear	Linear	.138
		Quadratic	Linear	.468
	Quadratic	Linear	Linear	.067
		Quadratic	Linear	.067
	Cubic	Linear	Linear	.052
		Quadratic	Linear	.057
	Order 4	Linear	Linear	.195
		Quadratic	Linear	.380
Error (Visualization*DataAttributesType*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	124700.807	1	124700.807	173.028	.000	.911
Error	12251.859	17	720.698			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	173.028	1.000
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
15.196	1.155	12.759	17.634

2. Visualization

Estimates

Measure: MEASURE_1

Visualization	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	12.139	.800	10.451	13.827
2	14.528	1.258	11.874	17.182
3	17.713	1.757	14.007	21.419
4	14.065	1.574	10.744	17.386
5	17.537	1.447	14.484	20.590

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-2.389	.919	.187	-5.351
	3	-5.574[*]	1.410	.010	-10.118
	4	-1.926	1.463	1.000	-6.639
	5	-5.398[*]	1.157	.002	-9.128
2	1	2.389	.919	.187	-.573
	3	-3.185	1.222	.184	-7.123
	4	.463	1.238	1.000	-3.526
	5	-3.009	1.084	.130	-6.504
3	1	5.574[*]	1.410	.010	1.030
	2	3.185	1.222	.184	-.753
	4	3.648	1.566	.324	-1.398
	5	.176	1.012	1.000	-3.084
4	1	1.926	1.463	1.000	-2.788
	2	-.463	1.238	1.000	-4.452
	3	-3.648	1.566	.324	-8.694
	5	-3.472	1.429	.264	-8.076
5	1	5.398[*]	1.157	.002	1.668
	2	3.009	1.084	.130	-.485
	3	-.176	1.012	1.000	-3.436
	4	3.472	1.429	.264	-1.131

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	.573
	3	-1.030
	4	2.788
	5	-1.668
2	1	5.351
	3	.753
	4	4.452
	5	.485
3	1	10.118
	2	7.123
	4	8.694
	5	3.436
4	1	6.639
	2	3.526
	3	1.398
	5	1.131
5	1	9.128
	2	6.504
	3	3.084
	4	8.076

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	.583	4.895[a]	4.000	14.000	.011	.583
Wilks' lambda	.417	4.895[a]	4.000	14.000	.011	.583
Hotelling's trace	1.399	4.895[a]	4.000	14.000	.011	.583
Roy's largest root	1.399	4.895[a]	4.000	14.000	.011	.583

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	19.580	.866
Wilks' lambda	19.580	.866
Hotelling's trace	19.580	.866
Roy's largest root	19.580	.866

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. DataAttributesType

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
DataAttributesType	Mean	Std. Error	Lower Bound	Upper Bound
1	13.183	1.029	11.013	15.354
2	18.900	1.346	16.060	21.740
3	13.506	1.440	10.467	16.544

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributesType	(J) DataAttributesType	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-5.717[*]	.963	.000	-8.273
	3	-.322	.837	1.000	-2.546
2	1	5.717[*]	.963	.000	3.160
	3	5.394[*]	1.093	.000	2.493
3	1	.322	.837	1.000	-1.901
	2	-5.394[*]	1.093	.000	-8.296

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributesType	(J) DataAttributesType	95% Confidence Interval for [b]... Upper Bound
1	2	-3.160
	3	1.901
2	1	8.273
	3	8.296
3	1	2.546
	2	-2.493

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	.684	17.338[a]	2.000	16.000	.000	.684
Wilks' lambda	.316	17.338[a]	2.000	16.000	.000	.684
Hotelling's trace	2.167	17.338[a]	2.000	16.000	.000	.684
Roy's largest root	2.167	17.338[a]	2.000	16.000	.000	.684

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	34.675	.999
Wilks' lambda	34.675	.999
Hotelling's trace	34.675	.999
Roy's largest root	34.675	.999

Each F tests the multivariate effect of DataAttributesType. 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 * DataAttributesType

Measure: MEASURE_1

Visualization	DataAttributesType	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	9.917	.948	7.916	11.917
	2	16.222	1.293	13.494	18.950
	3	10.278	1.056	8.050	12.505
2	1	14.000	2.046	9.683	18.317
	2	14.222	1.537	10.980	17.464
	3	15.361	2.476	10.137	20.585
3	1	15.944	1.623	12.520	19.368
	2	23.111	2.834	17.132	29.090
	3	14.083	1.645	10.614	17.553
4	1	14.194	2.316	9.308	19.081
	2	15.917	2.221	11.230	20.603
	3	12.083	1.397	9.136	15.031
5	1	11.861	1.028	9.692	14.030
	2	25.028	1.861	21.101	28.955
	3	15.722	2.858	9.692	21.752