```
 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\Distribution\Distribution_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 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		07-SEP-2016 10:04:04
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\Distribution\Distribution_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 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	00:00:00.03
	Elapsed Time	00:00:00.02

[DataSet1] C:\Users\Bahador\Desktop\Analysis\Distribution\Distribution_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	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

Within-Subjects Factors

Measure: MEASURE_1

Visualization	DataAttributeTypes	Dataset	Dependent Variable
3	1	1	Pie_Nom_Num_Car
		2	Pie_Nom_Num_Movie
	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	24.5000	8.99837	18
Bar_Nom_Num_Movie	21.8333	8.52850	18
Bar_Num_Num_Car	26.2222	12.09062	18
Bar_Num_Num_Movie	27.1667	12.26784	18
Bar_Ord_Num_Car	24.0556	19.67223	18
Bar_Ord_Num_Movie	17.5556	8.60384	18
Line_Nom_Num_Car	33.9444	25.29234	18
Line_Nom_Num_Movie	27.1667	22.17908	18
Line_Num_Num_Car	23.0556	14.30538	18
Line_Num_Num_Movie	25.2778	11.78636	18
Line_Ord_Num_Car	24.8333	15.96780	18
Line_Ord_Num_Movie	26.2778	16.37719	18
Pie_Nom_Num_Car	24.3889	12.88017	18
Pie_Nom_Num_Movie	23.7222	13.28779	18
Pie_Num_Num_Car	34.0556	20.92415	18
Pie_Num_Num_Movie	34.4444	19.24218	18
Pie_Ord_Num_Car	21.6111	8.69847	18
Pie_Ord_Num_Movie	24.6111	14.40645	18
Scatter_Nom_Num_Car	19.2778	11.35422	18
Scatter_Nom_Num_Movie	18.2222	8.54439	18
Scatter_Num_Num_Car	21.6667	10.11115	18
Scatter_Num_Num_Movie	24.7222	14.94226	18
Scatter_Ord_Num_Car	24.6111	19.59033	18
Scatter_Ord_Num_Movie	20.0556	12.44504	18
Table_Nom_Num_Car	21.3333	11.90650	18
Table_Nom_Num_Movie	19.9444	9.20660	18
Table_Num_Num_Car	40.5000	22.72146	18
Table_Num_Num_Movie	34.7778	20.26169	18
Table_Ord_Num_Car	23.8333	16.57159	18
Table_Ord_Num_Movie	33.8333	47.80998	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.553	4.330[b]	4.000	14.000
	Wilks' Lambda	.447	4.330[b]	4.000	14.000
	Hotelling's Trace	1.237	4.330[b]	4.000	14.000
	Roy's Largest Root	1.237	4.330[b]	4.000	14.000
DataAttributeTypes	Pillai's Trace	.424	5.887[b]	2.000	16.000
	Wilks' Lambda	.576	5.887[b]	2.000	16.000
	Hotelling's Trace	.736	5.887[b]	2.000	16.000
	Roy's Largest Root	.736	5.887[b]	2.000	16.000
Dataset	Pillai's Trace	.007	.115[b]	1.000	17.000
	Wilks' Lambda	.993	.115[b]	1.000	17.000
	Hotelling's Trace	.007	.115[b]	1.000	17.000
	Roy's Largest Root	.007	.115[b]	1.000	17.000
Visualization * DataAttributeTypes	Pillai's Trace	.693	2.824[b]	8.000	10.000
	Wilks' Lambda	.307	2.824[b]	8.000	10.000
	Hotelling's Trace	2.260	2.824[b]	8.000	10.000
	Roy's Largest Root	2.260	2.824[b]	8.000	10.000
Visualization * Dataset	Pillai's Trace	.241	1.110[b]	4.000	14.000
	Wilks' Lambda	.759	1.110[b]	4.000	14.000
	Hotelling's Trace	.317	1.110[b]	4.000	14.000
	Roy's Largest Root	.317	1.110[b]	4.000	14.000
DataAttributeTypes * Dataset	Pillai's Trace	.063	.539[b]	2.000	16.000
	Wilks' Lambda	.937	.539[b]	2.000	16.000
	Hotelling's Trace	.067	.539[b]	2.000	16.000
	Roy's Largest Root	.067	.539[b]	2.000	16.000
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.351	.677[b]	8.000	10.000
	Wilks' Lambda	.649	.677[b]	8.000	10.000
	Hotelling's Trace	.542	.677[b]	8.000	10.000
	Roy's Largest Root	.542	.677[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.017	.553	17.320
	Wilks' Lambda	.017	.553	17.320
	Hotelling's Trace	.017	.553	17.320
	Roy's Largest Root	.017	.553	17.320
DataAttributeTypes	Pillai's Trace	.012	.424	11.774
	Wilks' Lambda	.012	.424	11.774
	Hotelling's Trace	.012	.424	11.774
	Roy's Largest Root	.012	.424	11.774
Dataset	Pillai's Trace	.739	.007	.115
	Wilks' Lambda	.739	.007	.115
	Hotelling's Trace	.739	.007	.115
	Roy's Largest Root	.739	.007	.115
Visualization * DataAttributeTypes	Pillai's Trace	.063	.693	22.596
	Wilks' Lambda	.063	.693	22.596
	Hotelling's Trace	.063	.693	22.596
	Roy's Largest Root	.063	.693	22.596
Visualization * Dataset	Pillai's Trace	.390	.241	4.440
	Wilks' Lambda	.390	.241	4.440
	Hotelling's Trace	.390	.241	4.440
	Roy's Largest Root	.390	.241	4.440
DataAttributeTypes * Dataset	Pillai's Trace	.593	.063	1.078
	Wilks' Lambda	.593	.063	1.078
	Hotelling's Trace	.593	.063	1.078
	Roy's Largest Root	.593	.063	1.078
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.703	.351	5.419
	Wilks' Lambda	.703	.351	5.419
	Hotelling's Trace	.703	.351	5.419
	Roy's Largest Root	.703	.351	5.419

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	.817
	Wilks' Lambda	.817
	Hotelling's Trace	.817
	Roy's Largest Root	.817
DataAttributeTypes	Pillai's Trace	.803
	Wilks' Lambda	.803
	Hotelling's Trace	.803
	Roy's Largest Root	.803
Dataset	Pillai's Trace	.062
	Wilks' Lambda	.062
	Hotelling's Trace	.062
	Roy's Largest Root	.062
Visualization * DataAttributeTypes	Pillai's Trace	.670
	Wilks' Lambda	.670
	Hotelling's Trace	.670
	Roy's Largest Root	.670
Visualization * Dataset	Pillai's Trace	.262
	Wilks' Lambda	.262
	Hotelling's Trace	.262
	Roy's Largest Root	.262
DataAttributeTypes * Dataset	Pillai's Trace	.124
	Wilks' Lambda	.124
	Hotelling's Trace	.124
	Roy's Largest Root	.124
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.179
	Wilks' Lambda	.179
	Hotelling's Trace	.179
	Roy's Largest Root	.179

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	.412	13.658	9	.137	.817
DataAttributeTypes	.909	1.534	2	.464	.916
Dataset	1.000	.000	0	.	1.000
Visualization * DataAttributeTypes	.008	67.584	35	.001	.495
Visualization * Dataset	.301	18.513	9	.031	.632
DataAttributeTypes * Dataset	.976	.385	2	.825	.977
Visualization * DataAttributeTypes * Dataset	.004	78.695	35	.000	.398

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	1.000	.250
DataAttributeTypes	1.000	.500
Dataset	1.000	1.000
Visualization * DataAttributeTypes	.664	.125
Visualization * Dataset	.752	.250
DataAttributeTypes * Dataset	1.000	.500
Visualization * DataAttributeTypes * Dataset	.501	.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	4009.667	4	1002.417	4.741
	Greenhouse-Geisser	4009.667	3.268	1226.855	4.741
	Huynh-Feldt	4009.667	4.000	1002.417	4.741
	Lower-bound	4009.667	1.000	4009.667	4.741
Error(Visualization)	Sphericity Assumed	14377.467	68	211.433	
	Greenhouse-Geisser	14377.467	55.560	258.773	
	Huynh-Feldt	14377.467	68.000	211.433	
	Lower-bound	14377.467	17.000	845.733	
DataAttributeTypes	Sphericity Assumed	3553.411	2	1776.706	7.267
	Greenhouse-Geisser	3553.411	1.832	1939.167	7.267
	Huynh-Feldt	3553.411	2.000	1776.706	7.267
	Lower-bound	3553.411	1.000	3553.411	7.267
Error(DataAttributeTypes)	Sphericity Assumed	8312.389	34	244.482	
	Greenhouse-Geisser	8312.389	31.152	266.837	
	Huynh-Feldt	8312.389	34.000	244.482	
	Lower-bound	8312.389	17.000	488.964	
Dataset	Sphericity Assumed	41.113	1	41.113	.115
	Greenhouse-Geisser	41.113	1.000	41.113	.115
	Huynh-Feldt	41.113	1.000	41.113	.115
	Lower-bound	41.113	1.000	41.113	.115
Error(Dataset)	Sphericity Assumed	6073.454	17	357.262	
	Greenhouse-Geisser	6073.454	17.000	357.262	
	Huynh-Feldt	6073.454	17.000	357.262	
	Lower-bound	6073.454	17.000	357.262	
Visualization * DataAttributeTypes	Sphericity Assumed	6242.922	8	780.365	3.412
	Greenhouse-Geisser	6242.922	3.961	1576.217	3.412

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.002	.218	18.964
	Greenhouse-Geisser	.004	.218	15.495
	Huynh-Feldt	.002	.218	18.964
	Lower-bound	.044	.218	4.741
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes	Sphericity Assumed	.002	.299	14.534
	Greenhouse-Geisser	.003	.299	13.317
	Huynh-Feldt	.002	.299	14.534
	Lower-bound	.015	.299	7.267
Error(DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Dataset	Sphericity Assumed	.739	.007	.115
	Greenhouse-Geisser	.739	.007	.115
	Huynh-Feldt	.739	.007	.115
	Lower-bound	.739	.007	.115
Error(Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes	Sphericity Assumed	.001	.167	27.298
	Greenhouse-Geisser	.014	.167	13.515

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	.939
	Greenhouse-Geisser	.897
	Huynh-Feldt	.939
	Lower-bound	.537
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes	Sphericity Assumed	.914
	Greenhouse-Geisser	.894
	Huynh-Feldt	.914
	Lower-bound	.719
Error(DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Dataset	Sphericity Assumed	.062
	Greenhouse-Geisser	.062
	Huynh-Feldt	.062
	Lower-bound	.062
Error(Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes	Sphericity Assumed	.973
	Greenhouse-Geisser	.825

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	6242.922	5.314	1174.776	3.412
	Lower-bound	6242.922	1.000	6242.922	3.412
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	31102.944	136	228.698	
	Greenhouse-Geisser	31102.944	67.332	461.935	
	Huynh-Feldt	31102.944	90.340	344.286	
	Lower-bound	31102.944	17.000	1829.585	
Visualization * Dataset	Sphericity Assumed	257.600	4	64.400	.443
	Greenhouse-Geisser	257.600	2.529	101.841	.443
	Huynh-Feldt	257.600	3.008	85.633	.443
	Lower-bound	257.600	1.000	257.600	.443
Error(Visualization*Dataset)	Sphericity Assumed	9896.333	68	145.534	
	Greenhouse-Geisser	9896.333	43.000	230.145	
	Huynh-Feldt	9896.333	51.139	193.519	
	Lower-bound	9896.333	17.000	582.137	
DataAttributeTypes * Dataset	Sphericity Assumed	264.737	2	132.369	.515
	Greenhouse-Geisser	264.737	1.954	135.516	.515
	Huynh-Feldt	264.737	2.000	132.369	.515
	Lower-bound	264.737	1.000	264.737	.515
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	8737.596	34	256.988	
	Greenhouse-Geisser	8737.596	33.210	263.099	
	Huynh-Feldt	8737.596	34.000	256.988	
	Lower-bound	8737.596	17.000	513.976	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	1944.744	8	243.093	1.026
	Greenhouse-Geisser	1944.744	3.187	610.254	1.026
	Huynh-Feldt	1944.744	4.008	485.227	1.026
	Lower-bound	1944.744	1.000	1944.744	1.026
Error (Visualization*DataAttributeTypes*Dataset)	Sphericity Assumed	32223.922	136	236.941	
	Greenhouse-Geisser	32223.922	54.175	594.809	
	Huynh-Feldt	32223.922	68.134	472.947	
	Lower-bound	32223.922	17.000	1895.525	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.006	.167	18.133
	Lower-bound	.082	.167	3.412
Error (Visualization*DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Dataset	Sphericity Assumed	.777	.025	1.770
	Greenhouse-Geisser	.691	.025	1.119
	Huynh-Feldt	.724	.025	1.331
	Lower-bound	.515	.025	.443
Error(Visualization*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes * Dataset	Sphericity Assumed	.602	.029	1.030
	Greenhouse-Geisser	.598	.029	1.006
	Huynh-Feldt	.602	.029	1.030
	Lower-bound	.483	.029	.515
Error (DataAttributeTypes*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.420	.057	8.208
	Greenhouse-Geisser	.391	.057	3.270
	Huynh-Feldt	.400	.057	4.112
	Lower-bound	.325	.057	1.026
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	.905
	Lower-bound	.414
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Dataset	Sphericity Assumed	.148
	Greenhouse-Geisser	.125
	Huynh-Feldt	.133
	Lower-bound	.096
Error(Visualization*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes * Dataset	Sphericity Assumed	.128
	Greenhouse-Geisser	.127
	Huynh-Feldt	.128
	Lower-bound	.104
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.463
	Greenhouse-Geisser	.271
	Huynh-Feldt	.308
	Lower-bound	.160
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			342.281	1
	Quadratic			57.167	1
	Cubic			2816.237	1
	Order 4			793.981	1
Error(Visualization)	Linear			3920.185	17
	Quadratic			4090.310	17
	Cubic			4896.796	17
	Order 4			1470.176	17
DataAttributeTypes		Linear		43.403	1
		Quadratic		3510.008	1
Error(DataAttributeTypes)		Linear		3080.947	17
		Quadratic		5231.442	17
Dataset			Linear	41.113	1
Error(Dataset)			Linear	6073.454	17
Visualization * DataAttributeTypes	Linear	Linear		1587.168	1
		Quadratic		1261.945	1
	Quadratic	Linear		288.215	1
		Quadratic		392.170	1
	Cubic	Linear		78.672	1
		Quadratic		57.363	1
	Order 4	Linear		8.750	1
		Quadratic		2568.639	1
Error (Visualization*DataAttributeTypes)	Linear	Linear		6262.257	17
		Quadratic		3536.463	17
	Quadratic	Linear		3821.017	17
		Quadratic		4181.479	17
	Cubic	Linear		4162.278	17
		Quadratic		2804.354	17
	Order 4	Linear		1583.543	17
		Quadratic		4751.554	17
Visualization * Dataset	Linear		Linear	155.648	1
	Quadratic		Linear	23.376	1
	Cubic		Linear	30.000	1
	Order 4		Linear	48.576	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Visualization	Linear			342.281	1.484
	Quadratic			57.167	.238
	Cubic			2816.237	9.777
	Order 4			793.981	9.181
Error(Visualization)	Linear			230.599	
	Quadratic			240.606	
	Cubic			288.047	
	Order 4			86.481	
DataAttributeTypes		Linear		43.403	.239
		Quadratic		3510.008	11.406
Error(DataAttributeTypes)		Linear		181.232	
		Quadratic		307.732	
Dataset			Linear	41.113	.115
Error(Dataset)			Linear	357.262	
Visualization * DataAttributeTypes	Linear	Linear		1587.168	4.309
		Quadratic		1261.945	6.066
	Quadratic	Linear		288.215	1.282
		Quadratic		392.170	1.594
	Cubic	Linear		78.672	.321
		Quadratic		57.363	.348
	Order 4	Linear		8.750	.094
		Quadratic		2568.639	9.190
Error (Visualization*DataAttributeTypes)	Linear	Linear		368.368	
		Quadratic		208.027	
	Quadratic	Linear		224.766	
		Quadratic		245.969	
	Cubic	Linear		244.840	
		Quadratic		164.962	
	Order 4	Linear		93.150	
		Quadratic		279.503	
Visualization * Dataset	Linear		Linear	155.648	.983
	Quadratic		Linear	23.376	.156
	Cubic		Linear	30.000	.185
	Order 4		Linear	48.576	.435

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Sig.	Partial Eta Squared
Visualization	Linear			.240	.080
	Quadratic			.632	.014
	Cubic			.006	.365
	Order 4			.008	.351
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeTypes		Linear		.631	.014
		Quadratic		.004	.402
Error(DataAttributeTypes)		Linear			
		Quadratic			
Dataset			Linear	.739	.007
Error(Dataset)			Linear		
Visualization * DataAttributeTypes	Linear	Linear		.053	.202
		Quadratic		.025	.263
	Quadratic	Linear		.273	.070
		Quadratic		.224	.086
	Cubic	Linear		.578	.019
		Quadratic		.563	.020
	Order 4	Linear		.763	.005
		Quadratic		.008	.351
Error (Visualization*DataAttributeTypes)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Dataset	Linear		Linear	.335	.055
	Quadratic		Linear	.698	.009
	Cubic		Linear	.672	.011
	Order 4		Linear	.518	.025

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Noncent. Parameter
Visualization	Linear			1.484
	Quadratic			.238
	Cubic			9.777
	Order 4			9.181
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.239
		Quadratic		11.406
Error(DataAttributeTypes)		Linear		
		Quadratic		
Dataset			Linear	.115
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		4.309
		Quadratic		6.066
	Quadratic	Linear		1.282
		Quadratic		1.594
	Cubic	Linear		.321
		Quadratic		.348
	Order 4	Linear		.094
		Quadratic		9.190
Error (Visualization*DataAttributeTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.983
	Quadratic		Linear	.156
	Cubic		Linear	.185
	Order 4		Linear	.435

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Observed Power[a]
Visualization	Linear			.210
	Quadratic			.075
	Cubic			.838
	Order 4			.815
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.075
		Quadratic		.889
Error(DataAttributeTypes)		Linear		
		Quadratic		
Dataset			Linear	.062
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.499
		Quadratic		.641
	Quadratic	Linear		.188
		Quadratic		.222
	Cubic	Linear		.083
		Quadratic		.086
	Order 4	Linear		.060
		Quadratic		.815
Error (Visualization*DataAttributeTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.155
	Quadratic		Linear	.066
	Cubic		Linear	.069
	Order 4		Linear	.096

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Type III Sum of Squares	df
Error(Visualization*Dataset)	Linear		Linear	2692.485	17
	Quadratic		Linear	2551.672	17
	Cubic		Linear	2754.367	17
	Order 4		Linear	1897.810	17
DataAttributeTypes * Dataset		Linear	Linear	228.803	1
		Quadratic	Linear	35.934	1
Error (DataAttributeTypes*Dataset)		Linear	Linear	4478.747	17
		Quadratic	Linear	4258.849	17
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	157.735	1
		Quadratic	Linear	545.012	1
	Quadratic	Linear	Linear	3.001	1
		Quadratic	Linear	141.873	1
	Cubic	Linear	Linear	672.800	1
		Quadratic	Linear	183.750	1
	Order 4	Linear	Linear	7.314	1
		Quadratic	Linear	233.260	1
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	3226.590	17
		Quadratic	Linear	4182.030	17
	Quadratic	Linear	Linear	6632.017	17
		Quadratic	Linear	4554.990	17
	Cubic	Linear	Linear	6115.750	17
		Quadratic	Linear	2543.833	17
	Order 4	Linear	Linear	1657.493	17
		Quadratic	Linear	3311.219	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Error(Visualization*Dataset)	Linear		Linear	158.381	
	Quadratic		Linear	150.098	
	Cubic		Linear	162.022	
	Order 4		Linear	111.636	
DataAttributeTypes * Dataset		Linear	Linear	228.803	.868
		Quadratic	Linear	35.934	.143
Error (DataAttributeTypes*Dataset)		Linear	Linear	263.456	
		Quadratic	Linear	250.521	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	157.735	.831
		Quadratic	Linear	545.012	2.215
	Quadratic	Linear	Linear	3.001	.008
		Quadratic	Linear	141.873	.529
	Cubic	Linear	Linear	672.800	1.870
		Quadratic	Linear	183.750	1.228
	Order 4	Linear	Linear	7.314	.075
		Quadratic	Linear	233.260	1.198
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	189.799	
		Quadratic	Linear	246.002	
	Quadratic	Linear	Linear	390.119	
		Quadratic	Linear	267.941	
	Cubic	Linear	Linear	359.750	
		Quadratic	Linear	149.637	
	Order 4	Linear	Linear	97.500	
		Quadratic	Linear	194.778	

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	.364	.049
		Quadratic	Linear	.710	.008
Error (DataAttributeTypes*Dataset)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.375	.047
		Quadratic	Linear	.155	.115
	Quadratic	Linear	Linear	.931	.000
		Quadratic	Linear	.477	.030
	Cubic	Linear	Linear	.189	.099
		Quadratic	Linear	.283	.067
	Order 4	Linear	Linear	.787	.004
		Quadratic	Linear	.289	.066
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	.868
		Quadratic	Linear	.143
Error (DataAttributeTypes*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.831
		Quadratic	Linear	2.215
	Quadratic	Linear	Linear	.008
		Quadratic	Linear	.529
	Cubic	Linear	Linear	1.870
		Quadratic	Linear	1.228
	Order 4	Linear	Linear	.075
		Quadratic	Linear	1.198
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	.142
		Quadratic	Linear	.065
Error (DataAttributeTypes*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.138
		Quadratic	Linear	.290
	Quadratic	Linear	Linear	.051
		Quadratic	Linear	.106
	Cubic	Linear	Linear	.252
		Quadratic	Linear	.182
	Order 4	Linear	Linear	.058
		Quadratic	Linear	.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	

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	353433.750	1	353433.750	135.406	.000	.888
Error	44372.950	17	2610.174			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	135.406	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
25.583	2.199	20.945	30.222

2. Visualization

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
Visualization	Mean	Std. Error	Lower Bound	Upper Bound
1	23.556	1.849	19.655	27.456
2	26.759	2.918	20.603	32.916
3	27.139	2.500	21.864	32.414
4	21.426	1.848	17.528	25.324
5	29.037	3.225	22.233	35.841

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-3.204	2.008	1.000	-9.673
	3	-3.583	2.099	1.000	-10.347
	4	2.130	1.557	1.000	-2.888
	5	-5.481	2.183	.225	-12.518
2	1	3.204	2.008	1.000	-3.266
	3	-.380	1.760	1.000	-6.052
	4	5.333	2.199	.267	-1.754
	5	-2.278	2.249	1.000	-9.524
3	1	3.583	2.099	1.000	-3.180
	2	.380	1.760	1.000	-5.292
	4	5.713*	1.416	.009	1.150
	5	-1.898	1.949	1.000	-8.180
4	1	-2.130	1.557	1.000	-7.148
	2	-5.333	2.199	.267	-12.420
	3	-5.713*	1.416	.009	-10.276
	5	-7.611*	2.175	.027	-14.619
5	1	5.481	2.183	.225	-1.555
	2	2.278	2.249	1.000	-4.969
	3	1.898	1.949	1.000	-4.383
	4	7.611*	2.175	.027	.603

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	3.266
	3	3.180
	4	7.148
	5	1.555
2	1	9.673
	3	5.292
	4	12.420
	5	4.969
3	1	10.347
	2	6.052
	4	10.276
	5	4.383
4	1	2.888
	2	1.754
	3	-1.150
	5	-.603
5	1	12.518
	2	9.524
	3	8.180
	4	14.619

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	.553	4.330[a]	4.000	14.000	.017	.553
Wilks' lambda	.447	4.330[a]	4.000	14.000	.017	.553
Hotelling's trace	1.237	4.330[a]	4.000	14.000	.017	.553
Roy's largest root	1.237	4.330[a]	4.000	14.000	.017	.553

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	17.320	.817
Wilks' lambda	17.320	.817
Hotelling's trace	17.320	.817
Roy's largest root	17.320	.817

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	23.433	1.921	19.381	27.486
2	29.189	2.614	23.675	34.703
3	24.128	2.588	18.667	29.588

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-5.756*	1.643	.008	-10.118
	3	-.694	1.419	1.000	-4.462
2	1	5.756*	1.643	.008	1.393
	3	5.061*	1.854	.043	.140
3	1	.694	1.419	1.000	-3.073
	2	-5.061*	1.854	.043	-9.983

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	95% Confidence Interval for [b]... Upper Bound
1	2	-1.393
	3	3.073
2	1	10.118
	3	9.983
3	1	4.462
	2	-.140

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	.424	5.887[a]	2.000	16.000	.012	.424
Wilks' lambda	.576	5.887[a]	2.000	16.000	.012	.424
Hotelling's trace	.736	5.887[a]	2.000	16.000	.012	.424
Roy's largest root	.736	5.887[a]	2.000	16.000	.012	.424

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	11.774	.803
Wilks' lambda	11.774	.803
Hotelling's trace	11.774	.803
Roy's largest root	11.774	.803

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

a. Exact statistic

b. Computed using alpha = .05

4. Visualization * DataAttributeTypes

Measure: MEASURE_1

Visualization	DataAttributeTypes	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	23.167	1.738	19.499	26.834
	2	26.694	2.592	21.226	32.163
	3	20.806	3.011	14.453	27.159
2	1	30.556	5.071	19.857	41.254
	2	24.167	2.603	18.675	29.659
	3	25.556	3.022	19.180	31.931
3	1	24.056	2.098	19.628	28.483
	2	34.250	4.035	25.738	42.762
	3	23.111	2.305	18.248	27.974
4	1	18.750	1.486	15.614	21.886
	2	23.194	2.382	18.170	28.219
	3	22.333	2.973	16.060	28.606
5	1	20.639	2.358	15.664	25.614
	2	37.639	4.125	28.937	46.341
	3	28.833	5.889	16.408	41.259