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

Your license will expire in 11 days.
GET
  FILE='C:\Users\Bahador\Desktop\Analysis\Cluster\Cluster_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
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2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(DataAttributeType) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Dataset) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Visualization*DataAttributeType)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Visualization DataAttributeType Dataset Visualization*DataAttribut
eType
    Visualization*Dataset DataAttributeType*Dataset Visualization*DataAttribut
eType*Dataset.

General Linear Model

Notes

Output Created		06-SEP-2016 09:50:41
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\Cluster\Cluster_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 DataAttributeType 3 Polynomial Dataset 2 Polynomial
	  /METHOD=SSTYPE(3)
	  /EMMEANS=TABLES(OVERALL)
	  /EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)
	  /EMMEANS=TABLES(DataAttributeType) COMPARE ADJ (BONFERRONI)
	  /EMMEANS=TABLES(Dataset) COMPARE ADJ (BONFERRONI)
	  /EMMEANS=TABLES(Visualization*DataAttributeType)
	  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
	  /CRITERIA=ALPHA(.05)
	
	/WSDESIGN=Visualization DataAttributeType Dataset Visualization*DataAttribute Type

Notes

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

[DataSet1] C:\Users\Bahador\Desktop\Analysis\Cluster\Cluster_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	DataAttributeType	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	DataAttributeType	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	10.4444	15.94189	18
Bar_Nom_Num_Movie	11.5556	6.97240	18
Bar_Num_Num_Car	22.0000	8.27470	18
Bar_Num_Num_Movie	19.5556	7.20476	18
Bar_Ord_Num_Car	11.0556	4.27678	18
Bar_Ord_Num_Movie	11.4444	4.71820	18
Line_Nom_Num_Car	13.3333	9.41838	18
Line_Nom_Num_Movie	11.8889	5.79948	18
Line_Num_Num_Car	29.0000	15.84484	18
Line_Num_Num_Movie	28.1111	15.93697	18
Line_Ord_Num_Car	22.7222	46.31326	18
Line_Ord_Num_Movie	14.9444	12.17747	18
Pie_Nom_Num_Car	9.3333	5.06429	18
Pie_Nom_Num_Movie	11.0000	10.22109	18
Pie_Num_Num_Car	18.0556	10.65210	18
Pie_Num_Num_Movie	20.1667	11.07329	18
Pie_Ord_Num_Car	8.9444	3.96265	18
Pie_Ord_Num_Movie	9.0000	7.32442	18
Scatter_Nom_Num_Car	9.7222	4.15587	18
Scatter_Nom_Num_Movie	11.8889	7.49815	18
Scatter_Num_Num_Car	27.8889	17.59976	18
Scatter_Num_Num_Movie	24.9444	17.56826	18
Scatter_Ord_Num_Car	11.8889	10.99138	18
Scatter_Ord_Num_Movie	15.1111	33.87848	18
Table_Nom_Num_Car	17.5556	11.70833	18
Table_Nom_Num_Movie	16.6111	14.10523	18
Table_Num_Num_Car	31.0556	15.69740	18
Table_Num_Num_Movie	22.8889	10.45938	18
Table_Ord_Num_Car	8.8889	4.30989	18
Table_Ord_Num_Movie	9.3333	6.00980	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.645	6.362[b]	4.000	14.000
	Wilks' Lambda	.355	6.362[b]	4.000	14.000
	Hotelling's Trace	1.818	6.362[b]	4.000	14.000
	Roy's Largest Root	1.818	6.362[b]	4.000	14.000
DataAttributeType	Pillai's Trace	.878	57.808[b]	2.000	16.000
	Wilks' Lambda	.122	57.808[b]	2.000	16.000
	Hotelling's Trace	7.226	57.808[b]	2.000	16.000
	Roy's Largest Root	7.226	57.808[b]	2.000	16.000
Dataset	Pillai's Trace	.022	.389[b]	1.000	17.000
	Wilks' Lambda	.978	.389[b]	1.000	17.000
	Hotelling's Trace	.023	.389[b]	1.000	17.000
	Roy's Largest Root	.023	.389[b]	1.000	17.000
Visualization * DataAttributeType	Pillai's Trace	.728	3.338[b]	8.000	10.000
	Wilks' Lambda	.272	3.338[b]	8.000	10.000
	Hotelling's Trace	2.670	3.338[b]	8.000	10.000
	Roy's Largest Root	2.670	3.338[b]	8.000	10.000
Visualization * Dataset	Pillai's Trace	.206	.911[b]	4.000	14.000
	Wilks' Lambda	.794	.911[b]	4.000	14.000
	Hotelling's Trace	.260	.911[b]	4.000	14.000
	Roy's Largest Root	.260	.911[b]	4.000	14.000
DataAttributeType * Dataset	Pillai's Trace	.052	.438[b]	2.000	16.000
	Wilks' Lambda	.948	.438[b]	2.000	16.000
	Hotelling's Trace	.055	.438[b]	2.000	16.000
	Roy's Largest Root	.055	.438[b]	2.000	16.000
Visualization * DataAttributeType * Dataset	Pillai's Trace	.421	.910[b]	8.000	10.000
	Wilks' Lambda	.579	.910[b]	8.000	10.000
	Hotelling's Trace	.728	.910[b]	8.000	10.000
	Roy's Largest Root	.728	.910[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.004	.645	25.449
	Wilks' Lambda	.004	.645	25.449
	Hotelling's Trace	.004	.645	25.449
	Roy's Largest Root	.004	.645	25.449
DataAttributeType	Pillai's Trace	.000	.878	115.616
	Wilks' Lambda	.000	.878	115.616
	Hotelling's Trace	.000	.878	115.616
	Roy's Largest Root	.000	.878	115.616
Dataset	Pillai's Trace	.541	.022	.389
	Wilks' Lambda	.541	.022	.389
	Hotelling's Trace	.541	.022	.389
	Roy's Largest Root	.541	.022	.389
Visualization * DataAttributeType	Pillai's Trace	.039	.728	26.704
	Wilks' Lambda	.039	.728	26.704
	Hotelling's Trace	.039	.728	26.704
	Roy's Largest Root	.039	.728	26.704
Visualization * Dataset	Pillai's Trace	.485	.206	3.642
	Wilks' Lambda	.485	.206	3.642
	Hotelling's Trace	.485	.206	3.642
	Roy's Largest Root	.485	.206	3.642
DataAttributeType * Dataset	Pillai's Trace	.653	.052	.876
	Wilks' Lambda	.653	.052	.876
	Hotelling's Trace	.653	.052	.876
	Roy's Largest Root	.653	.052	.876
Visualization * DataAttributeType * Dataset	Pillai's Trace	.544	.421	7.279
	Wilks' Lambda	.544	.421	7.279
	Hotelling's Trace	.544	.421	7.279
	Roy's Largest Root	.544	.421	7.279

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	.944
	Wilks' Lambda	.944
	Hotelling's Trace	.944
	Roy's Largest Root	.944
DataAttributeType	Pillai's Trace	1.000
	Wilks' Lambda	1.000
	Hotelling's Trace	1.000
	Roy's Largest Root	1.000
Dataset	Pillai's Trace	.091
	Wilks' Lambda	.091
	Hotelling's Trace	.091
	Roy's Largest Root	.091
Visualization * DataAttributeType	Pillai's Trace	.754
	Wilks' Lambda	.754
	Hotelling's Trace	.754
	Roy's Largest Root	.754
Visualization * Dataset	Pillai's Trace	.219
	Wilks' Lambda	.219
	Hotelling's Trace	.219
	Roy's Largest Root	.219
DataAttributeType * Dataset	Pillai's Trace	.109
	Wilks' Lambda	.109
	Hotelling's Trace	.109
	Roy's Largest Root	.109
Visualization * DataAttributeType * Dataset	Pillai's Trace	.233
	Wilks' Lambda	.233
	Hotelling's Trace	.233
	Roy's Largest Root	.233

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

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	.228	22.766	9	.007	.591
DataAttributeType	.862	2.368	2	.306	.879
Dataset	1.000	.000	0	.	1.000
Visualization * DataAttributeType	.003	81.165	35	.000	.423
Visualization * Dataset	.139	30.440	9	.000	.561
DataAttributeType * Dataset	.932	1.118	2	.572	.937
Visualization * DataAttributeType * Dataset	.001	100.711	35	.000	.383

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	.693	.250
DataAttributeType	.973	.500
Dataset	1.000	1.000
Visualization * DataAttributeType	.541	.125
Visualization * Dataset	.651	.250
DataAttributeType * Dataset	1.000	.500
Visualization * DataAttributeType * Dataset	.477	.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 + DataAttributeType + Dataset + Visualization * DataAttributeType + Visualization * Dataset + DataAttributeType * Dataset + Visualization * DataAttributeType * Dataset

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	3510.619	4	877.655	3.914
	Greenhouse-Geisser	3510.619	2.364	1485.234	3.914
	Huynh-Feldt	3510.619	2.770	1267.257	3.914
	Lower-bound	3510.619	1.000	3510.619	3.914
Error(Visualization)	Sphericity Assumed	15249.181	68	224.253	
	Greenhouse-Geisser	15249.181	40.183	379.497	
	Huynh-Feldt	15249.181	47.094	323.801	
	Lower-bound	15249.181	17.000	897.011	
DataAttributeType	Sphericity Assumed	17376.133	2	8688.067	47.221
	Greenhouse-Geisser	17376.133	1.758	9883.126	47.221
	Huynh-Feldt	17376.133	1.945	8933.282	47.221
	Lower-bound	17376.133	1.000	17376.133	47.221
Error(DataAttributeType)	Sphericity Assumed	6255.533	34	183.986	
	Greenhouse-Geisser	6255.533	29.889	209.294	
	Huynh-Feldt	6255.533	33.067	189.179	
	Lower-bound	6255.533	17.000	367.973	
Dataset	Sphericity Assumed	108.452	1	108.452	.389
	Greenhouse-Geisser	108.452	1.000	108.452	.389
	Huynh-Feldt	108.452	1.000	108.452	.389
	Lower-bound	108.452	1.000	108.452	.389
Error(Dataset)	Sphericity Assumed	4738.215	17	278.719	
	Greenhouse-Geisser	4738.215	17.000	278.719	
	Huynh-Feldt	4738.215	17.000	278.719	
	Lower-bound	4738.215	17.000	278.719	
Visualization * DataAttributeType	Sphericity Assumed	2499.570	8	312.446	1.618
	Greenhouse-Geisser	2499.570	3.386	738.137	1.618

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.006	.187	15.655
	Greenhouse-Geisser	.022	.187	9.251
	Huynh-Feldt	.016	.187	10.842
	Lower-bound	.064	.187	3.914
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeType	Sphericity Assumed	.000	.735	94.443
	Greenhouse-Geisser	.000	.735	83.023
	Huynh-Feldt	.000	.735	91.850
	Lower-bound	.000	.735	47.221
Error(DataAttributeType)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Dataset	Sphericity Assumed	.541	.022	.389
	Greenhouse-Geisser	.541	.022	.389
	Huynh-Feldt	.541	.022	.389
	Lower-bound	.541	.022	.389
Error(Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeType	Sphericity Assumed	.125	.087	12.947
	Greenhouse-Geisser	.190	.087	5.481

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	.882
	Greenhouse-Geisser	.721
	Huynh-Feldt	.773
	Lower-bound	.463
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeType	Sphericity Assumed	1.000
	Greenhouse-Geisser	1.000
	Huynh-Feldt	1.000
	Lower-bound	1.000
Error(DataAttributeType)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Dataset	Sphericity Assumed	.091
	Greenhouse-Geisser	.091
	Huynh-Feldt	.091
	Lower-bound	.091
Error(Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeType	Sphericity Assumed	.695
	Greenhouse-Geisser	.429

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	2499.570	4.330	577.203	1.618
	Lower-bound	2499.570	1.000	2499.570	1.618
Error (Visualization*DataAttribute Type)	Sphericity Assumed	26255.430	136	193.055	
	Greenhouse-Geisser	26255.430	57.568	456.081	
	Huynh-Feldt	26255.430	73.618	356.643	
	Lower-bound	26255.430	17.000	1544.437	
Visualization * Dataset	Sphericity Assumed	488.270	4	122.068	.563
	Greenhouse-Geisser	488.270	2.246	217.443	.563
	Huynh-Feldt	488.270	2.604	187.515	.563
	Lower-bound	488.270	1.000	488.270	.563
Error(Visualization*Dataset)	Sphericity Assumed	14746.730	68	216.864	
	Greenhouse-Geisser	14746.730	38.174	386.306	
	Huynh-Feldt	14746.730	44.266	333.137	
	Lower-bound	14746.730	17.000	867.455	
DataAttributeType * Dataset	Sphericity Assumed	201.304	2	100.652	.400
	Greenhouse-Geisser	201.304	1.874	107.447	.400
	Huynh-Feldt	201.304	2.000	100.652	.400
	Lower-bound	201.304	1.000	201.304	.400
Error (DataAttributeType*Dataset)	Sphericity Assumed	8565.830	34	251.936	
	Greenhouse-Geisser	8565.830	31.850	268.944	
	Huynh-Feldt	8565.830	34.000	251.936	
	Lower-bound	8565.830	17.000	503.872	
Visualization * DataAttributeType * Dataset	Sphericity Assumed	727.474	8	90.934	.428
	Greenhouse-Geisser	727.474	3.067	237.212	.428
	Huynh-Feldt	727.474	3.818	190.521	.428
	Lower-bound	727.474	1.000	727.474	.428
Error (Visualization*DataAttribute Type*Dataset)	Sphericity Assumed	28862.726	136	212.226	
	Greenhouse-Geisser	28862.726	52.135	553.614	
	Huynh-Feldt	28862.726	64.912	444.645	
	Lower-bound	28862.726	17.000	1697.807	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.174	.087	7.009
	Lower-bound	.220	.087	1.618
Error (Visualization*DataAttribute Type)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Dataset	Sphericity Assumed	.690	.032	2.252
	Greenhouse-Geisser	.594	.032	1.264
	Huynh-Feldt	.618	.032	1.466
	Lower-bound	.463	.032	.563
Error(Visualization*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeType * Dataset	Sphericity Assumed	.674	.023	.799
	Greenhouse-Geisser	.661	.023	.748
	Huynh-Feldt	.674	.023	.799
	Lower-bound	.536	.023	.400
Error (DataAttributeType*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeType * Dataset	Sphericity Assumed	.902	.025	3.428
	Greenhouse-Geisser	.738	.025	1.314
	Huynh-Feldt	.779	.025	1.636
	Lower-bound	.521	.025	.428
Error (Visualization*DataAttribute Type*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
	Huynh-Feldt	.496
	Lower-bound	.225
Error (Visualization*DataAttribute Type)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Dataset	Sphericity Assumed	.179
	Greenhouse-Geisser	.141
	Huynh-Feldt	.149
	Lower-bound	.109
Error(Visualization*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeType * Dataset	Sphericity Assumed	.109
	Greenhouse-Geisser	.107
	Huynh-Feldt	.109
	Lower-bound	.092
Error (DataAttributeType*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeType * Dataset	Sphericity Assumed	.195
	Greenhouse-Geisser	.131
	Huynh-Feldt	.142
	Lower-bound	.095
Error (Visualization*DataAttribute Type*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeType	Dataset	Type III Sum of Squares	df
Visualization	Linear			145.200	1
	Quadratic			22.881	1
	Cubic			988.045	1
	Order 4			2354.492	1
Error(Visualization)	Linear			2231.300	17
	Quadratic			1839.476	17
	Cubic			7938.538	17
	Order 4			3239.867	17
DataAttributeType		Linear		.000	1
		Quadratic		17376.133	1
Error(DataAttributeType)		Linear		3508.700	17
		Quadratic		2746.833	17
Dataset			Linear	108.452	1
Error(Dataset)			Linear	4738.215	17
Visualization * DataAttributeType	Linear	Linear		718.001	1
		Quadratic		234.038	1
	Quadratic	Linear		620.715	1
		Quadratic		1.313	1
	Cubic	Linear		2.450	1
		Quadratic		4.446	1
	Order 4	Linear		657.222	1
		Quadratic		261.385	1
Error (Visualization*DataAttributeType)	Linear	Linear		2290.924	17
		Quadratic		1409.138	17
	Quadratic	Linear		1701.731	17
		Quadratic		1504.313	17
	Cubic	Linear		7824.250	17
		Quadratic		4223.920	17
	Order 4	Linear		4324.006	17
		Quadratic		2977.148	17
Visualization * Dataset	Linear		Linear	2.504	1
	Quadratic		Linear	79.177	1
	Cubic		Linear	323.408	1
	Order 4		Linear	83.181	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeType	Dataset	Mean Square	F
Visualization	Linear			145.200	1.106
	Quadratic			22.881	.211
	Cubic			988.045	2.116
	Order 4			2354.492	12.354
Error(Visualization)	Linear			131.253	
	Quadratic			108.204	
	Cubic			466.973	
	Order 4			190.580	
DataAttributeType		Linear		.000	.000
		Quadratic		17376.133	107.540
Error(DataAttributeType)		Linear		206.394	
		Quadratic		161.578	
Dataset			Linear	108.452	.389
Error(Dataset)			Linear	278.719	
Visualization * DataAttributeType	Linear	Linear		718.001	5.328
		Quadratic		234.038	2.823
	Quadratic	Linear		620.715	6.201
		Quadratic		1.313	.015
	Cubic	Linear		2.450	.005
		Quadratic		4.446	.018
	Order 4	Linear		657.222	2.584
		Quadratic		261.385	1.493
Error (Visualization*DataAttributeType)	Linear	Linear		134.760	
		Quadratic		82.890	
	Quadratic	Linear		100.102	
		Quadratic		88.489	
	Cubic	Linear		460.250	
		Quadratic		248.466	
	Order 4	Linear		254.353	
		Quadratic		175.126	
Visualization * Dataset	Linear		Linear	2.504	.023
	Quadratic		Linear	79.177	.942
	Cubic		Linear	323.408	.680
	Order 4		Linear	83.181	.417

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeType	Dataset	Sig.	Partial Eta Squared
Visualization	Linear			.308	.061
	Quadratic			.651	.012
	Cubic			.164	.111
	Order 4			.003	.421
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeType		Linear		1.000	.000
		Quadratic		.000	.863
Error(DataAttributeType)		Linear			
		Quadratic			
Dataset			Linear	.541	.022
Error(Dataset)			Linear		
Visualization * DataAttributeType	Linear	Linear		.034	.239
		Quadratic		.111	.142
	Quadratic	Linear		.023	.267
		Quadratic		.904	.001
	Cubic	Linear		.943	.000
		Quadratic		.895	.001
	Order 4	Linear		.126	.132
		Quadratic		.238	.081
Error (Visualization*DataAttributeType)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Dataset	Linear		Linear	.881	.001
	Quadratic		Linear	.345	.052
	Cubic		Linear	.421	.038
	Order 4		Linear	.527	.024

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeType	Dataset	Noncent. Parameter	Observed Power[a]
Visualization	Linear			1.106	.168
	Quadratic			.211	.072
	Cubic			2.116	.279
	Order 4			12.354	.912
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeType		Linear		.000	.050
		Quadratic		107.540	1.000
Error(DataAttributeType)		Linear			
		Quadratic			
Dataset			Linear	.389	.091
Error(Dataset)			Linear		
Visualization * DataAttributeType	Linear	Linear		5.328	.586
		Quadratic		2.823	.354
	Quadratic	Linear		6.201	.651
		Quadratic		.015	.052
	Cubic	Linear		.005	.051
		Quadratic		.018	.052
	Order 4	Linear		2.584	.329
		Quadratic		1.493	.211
Error (Visualization*DataAttribute Type)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Dataset	Linear		Linear	.023	.052
	Quadratic		Linear	.942	.150
	Cubic		Linear	.680	.122
	Order 4		Linear	.417	.094

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeType	Dataset	Type III Sum of Squares	df
Error(Visualization*Dataset)	Linear		Linear	1844.530	17
	Quadratic		Linear	1429.085	17
	Cubic		Linear	8084.975	17
	Order 4		Linear	3388.140	17
DataAttributeType * Dataset		Linear	Linear	34.844	1
		Quadratic	Linear	166.459	1
Error (DataAttributeType*Dataset)		Linear	Linear	3730.656	17
		Quadratic	Linear	4835.174	17
Visualization * DataAttributeType * Dataset	Linear	Linear	Linear	60.668	1
		Quadratic	Linear	212.189	1
	Quadratic	Linear	Linear	31.080	1
		Quadratic	Linear	222.897	1
	Cubic	Linear	Linear	72.200	1
		Quadratic	Linear	117.600	1
	Order 4	Linear	Linear	9.429	1
		Quadratic	Linear	1.410	1
Error (Visualization*DataAttributeType*Dataset)	Linear	Linear	Linear	2603.957	17
		Quadratic	Linear	4146.752	17
	Quadratic	Linear	Linear	2277.580	17
		Quadratic	Linear	3081.180	17
	Cubic	Linear	Linear	7452.300	17
		Quadratic	Linear	2823.167	17
	Order 4	Linear	Linear	4668.285	17
		Quadratic	Linear	1809.504	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeType	Dataset	Mean Square	F
Error(Visualization*Dataset)	Linear		Linear	108.502	
	Quadratic		Linear	84.064	
	Cubic		Linear	475.587	
	Order 4		Linear	199.302	
DataAttributeType * Dataset		Linear	Linear	34.844	.159
		Quadratic	Linear	166.459	.585
Error (DataAttributeType*Dataset)		Linear	Linear	219.450	
		Quadratic	Linear	284.422	
Visualization * DataAttributeType * Dataset	Linear	Linear	Linear	60.668	.396
		Quadratic	Linear	212.189	.870
	Quadratic	Linear	Linear	31.080	.232
		Quadratic	Linear	222.897	1.230
	Cubic	Linear	Linear	72.200	.165
		Quadratic	Linear	117.600	.708
	Order 4	Linear	Linear	9.429	.034
		Quadratic	Linear	1.410	.013
Error (Visualization*DataAttributeType*Dataset)	Linear	Linear	Linear	153.174	
		Quadratic	Linear	243.927	
	Quadratic	Linear	Linear	133.975	
		Quadratic	Linear	181.246	
	Cubic	Linear	Linear	438.371	
		Quadratic	Linear	166.069	
	Order 4	Linear	Linear	274.605	
		Quadratic	Linear	106.441	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeType	Dataset	Sig.	Partial Eta Squared
Error(Visualization*Dataset)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributeType * Dataset		Linear	Linear	.695	.009
		Quadratic	Linear	.455	.033
Error (DataAttributeType*Dataset)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributeType * Dataset	Linear	Linear	Linear	.537	.023
		Quadratic	Linear	.364	.049
	Quadratic	Linear	Linear	.636	.013
		Quadratic	Linear	.283	.067
	Cubic	Linear	Linear	.690	.010
		Quadratic	Linear	.412	.040
	Order 4	Linear	Linear	.855	.002
		Quadratic	Linear	.910	.001
Error (Visualization*DataAttribute Type*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	DataAttributeType	Dataset	Noncent. Parameter	Observed Power[a]
Error(Visualization*Dataset)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributeType * Dataset		Linear	Linear	.159	.066
		Quadratic	Linear	.585	.112
Error (DataAttributeType*Dataset)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributeType * Dataset	Linear	Linear	Linear	.396	.091
		Quadratic	Linear	.870	.143
	Quadratic	Linear	Linear	.232	.074
		Quadratic	Linear	1.230	.182
	Cubic	Linear	Linear	.165	.067
		Quadratic	Linear	.708	.125
	Order 4	Linear	Linear	.034	.054
		Quadratic	Linear	.013	.051
Error (Visualization*DataAttribute Type*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	144256.067	1	144256.067	390.349	.000	.958
Error	6282.467	17	369.557			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	390.349	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
16.344	.827	14.599	18.090

2. Visualization

Estimates

Measure: MEASURE_1

Visualization	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	14.343	.891	12.463	16.222
2	20.000	2.219	15.318	24.682
3	12.750	1.147	10.330	15.170
4	16.907	1.876	12.950	20.865
5	17.722	1.084	15.436	20.008

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-5.657	2.364	.285	-13.274
	3	1.593	1.148	1.000	-2.106
	4	-2.565	1.743	1.000	-8.180
	5	-3.380	1.305	.191	-7.585
2	1	5.657	2.364	.285	-1.959
	3	7.250	2.289	.056	-.126
	4	3.093	3.062	1.000	-6.774
	5	2.278	2.319	1.000	-5.194
3	1	-1.593	1.148	1.000	-5.292
	2	-7.250	2.289	.056	-14.626
	4	-4.157	1.935	.464	-10.393
	5	-4.972*	1.143	.004	-8.655
4	1	2.565	1.743	1.000	-3.050
	2	-3.093	3.062	1.000	-12.959
	3	4.157	1.935	.464	-2.078
	5	-.815	2.201	1.000	-7.907
5	1	3.380	1.305	.191	-.826
	2	-2.278	2.319	1.000	-9.750
	3	4.972*	1.143	.004	1.289
	4	.815	2.201	1.000	-6.277

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	1.959
	3	5.292
	4	3.050
	5	.826
2	1	13.274
	3	14.626
	4	12.959
	5	9.750
3	1	2.106
	2	.126
	4	2.078
	5	-1.289
4	1	8.180
	2	6.774
	3	10.393
	5	6.277
5	1	7.585
	2	5.194
	3	8.655
	4	7.907

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	.645	6.362[a]	4.000	14.000	.004	.645
Wilks' lambda	.355	6.362[a]	4.000	14.000	.004	.645
Hotelling's trace	1.818	6.362[a]	4.000	14.000	.004	.645
Roy's largest root	1.818	6.362[a]	4.000	14.000	.004	.645

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	25.449	.944
Wilks' lambda	25.449	.944
Hotelling's trace	25.449	.944
Roy's largest root	25.449	.944

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. DataAttributeType

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
DataAttributeType	Mean	Std. Error	Lower Bound	Upper Bound
1	12.333	.620	11.026	13.641
2	24.367	1.230	21.772	26.961
3	12.333	1.483	9.203	15.463

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeType	(J) DataAttributeType	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-12.033*	1.140	.000	-15.060
	3	.000	1.514	1.000	-4.021
2	1	12.033*	1.140	.000	9.007
	3	12.033*	1.594	.000	7.802
3	1	.000	1.514	1.000	-4.021
	2	-12.033*	1.594	.000	-16.265

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeType	(J) DataAttributeType	95% Confidence Interval for [b]... Upper Bound
1	2	-9.007
	3	4.021
2	1	15.060
	3	16.265
3	1	4.021
	2	-7.802

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	.878	57.808[a]	2.000	16.000	.000	.878
Wilks' lambda	.122	57.808[a]	2.000	16.000	.000	.878
Hotelling's trace	7.226	57.808[a]	2.000	16.000	.000	.878
Roy's largest root	7.226	57.808[a]	2.000	16.000	.000	.878

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	115.616	1.000
Wilks' lambda	115.616	1.000
Hotelling's trace	115.616	1.000
Roy's largest root	115.616	1.000

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

a. Exact statistic

b. Computed using alpha = .05

4. Dataset

Estimates

Measure: MEASURE_1

Dataset	Mean	Std. Error	95% Confidence Interval Lower Bound	Upper Bound
1	16.793	1.133	14.403	19.183
2	15.896	1.057	13.666	18.127

Pairwise Comparisons

Measure: MEASURE_1

(I) Dataset	(J) Dataset	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.896	1.437	.541	-2.135	3.928
2	1	-.896	1.437	.541	-3.928	2.135

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	.022	.389[a]	1.000	17.000	.541	.022
Wilks' lambda	.978	.389[a]	1.000	17.000	.541	.022
Hotelling's trace	.023	.389[a]	1.000	17.000	.541	.022
Roy's largest root	.023	.389[a]	1.000	17.000	.541	.022

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	.389	.091
Wilks' lambda	.389	.091
Hotelling's trace	.389	.091
Roy's largest root	.389	.091

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

a. Exact statistic

b. Computed using alpha = .05

5. Visualization * DataAttributeType

Measure: MEASURE_1

Visualization	DataAttributeType	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	11.000	1.960	6.864	15.136
	2	20.778	1.266	18.106	23.449
	3	11.250	.852	9.452	13.048
2	1	12.611	1.191	10.099	15.123
	2	28.556	2.668	22.926	34.186
	3	18.833	5.686	6.836	30.831
3	1	10.167	1.268	7.491	12.842
	2	19.111	1.955	14.987	23.235
	3	8.972	1.026	6.807	11.137
4	1	10.806	.961	8.778	12.833
	2	26.417	2.567	21.002	31.832
	3	13.500	4.056	4.943	22.057
5	1	17.083	1.913	13.047	21.120
	2	26.972	2.518	21.660	32.285
	3	9.111	.903	7.207	11.015