```
 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\Retrieve\Retrieve_Ranking.sav'.
DATASET NAME DataSet1 WINDOW=FRONT.
GLM Bar_Nom_Num_Car Bar_Nom_Num_Movie Bar_Num_Num_Car Bar_Num_Num_Movie Bar_Or
d_Num_Car
    Bar_Ord_Num_Movie Line_Nom_Num_Car Line_Nom_Num_Movie Line_Num_Num_Car Lin
e_Num_Num_Movie
    Line_Ord_Num_Car Line_Ord_Num_Movie Pie_Nom_Num_Car Pie_Nom_Num_Movie Pie_
Num_Num_Car
    Pie_Num_Num_Movie Pie_Ord_Num_Car Pie_Ord_Num_Movie Scatter_Nom_Num_Car Sc
atter_Nom_Num_Movie
    Scatter_Num_Num_Car Scatter_Num_Num_Movie Scatter_Ord_Num_Car Scatter_Ord_
Num_Movie
    Table_Nom_Num_Car Table_Nom_Num_Movie Table_Num_Num_Car Table_Num_Num_Movi
e Table_Ord_Num_Car
    Table_Ord_Num_Movie
  /WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 3 Polynomial Dataset
 2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(DataAttributeTypes) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Visualization*DataAttributeTypes)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Visualization DataAttributeTypes Dataset Visualization*DataAttribu
teTypes
    Visualization*Dataset DataAttributeTypes*Dataset Visualization*DataAttribu
teTypes*Dataset.
```

General Linear Model

Notes

Output Created		07-SEP-2016 13:20:40
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\Retrieve\Retrieve_Ranking.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Notes

Syntax	GLM Bar_Nom_Num_Car Bar_Nom_Num_Movie Bar_Num_Num_Car Bar_Num_Num_Movie Bar_Ord_Num_Car Bar_Ord_Num_Movie Line_Nom_Num_Car Line_Nom_Num_Movie Line_Num_Num_Car Line_Num_Num_Movie Line_Ord_Num_Car Line_Ord_Num_Movie Pie_Nom_Num_Car Pie_Nom_Num_Movie Pie_Num_Num_Car Pie_Num_Num_Movie Pie_Ord_Num_Car Pie_Ord_Num_Movie Scatter_Nom_Num_Car Scatter_Nom_Num_Movie Scatter_Num_Num_Car Scatter_Num_Num_Movie Scatter_Ord_Num_Car Scatter_Ord_Num_Movie Table_Nom_Num_Car Table_Nom_Num_Movie Table_Num_Num_Car Table_Num_Num_Movie Table_Ord_Num_Car Table_Ord_Num_Movie /WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 3 Polynomial Dataset 2 Polynomial /METHOD=SSTYPE(3) /EMMEANS=TABLES (OVERALL) /EMMEANS=TABLES (Visualization) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES (DataAttributeTypes) COMPARE ADJ (BONFERRONI) /EMMEANS=TABLES (Visualization*DataAttributeTypes) /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=Visualization DataAttributeTypes Dataset Visualization*DataAttributeTypes Visualization*Dataset DataAttributeTypes*Datas

Notes

Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.02

[DataSet1] C:\Users\Bahador\Desktop\Analysis\Retrieve\Retrieve_Ranking.sav

Warnings

The HOMOGENEITY specification in the PRINT subcommand will be ignored because there are no between-subjects factors.

Within-Subjects Factors

Measure: MEASURE_1

Visualization	DataAttributeTypes	Dataset	Dependent Variable
1	1	1	Bar_Nom_Num_Car
		2	Bar_Nom_Num_Movie
	2	1	Bar_Num_Num_Car
		2	Bar_Num_Num_Movie
	3	1	Bar_Ord_Num_Car
		2	Bar_Ord_Num_Movie
2	1	1	Line_Nom_Num_Car
		2	Line_Nom_Num_Movie
	2	1	Line_Num_Num_Car
		2	Line_Num_Num_Movie
	3	1	Line_Ord_Num_Car
		2	Line_Ord_Num_Movie
3	1	1	Pie_Nom_Num_Car
		2	Pie_Nom_Num_Movie

Within-Subjects Factors

Measure: MEASURE_1

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

Descriptive Statistics

	Mean	Std. Deviation	N
Bar_Nom_Num_Car	2.6667	.90749	18
Bar_Nom_Num_Movie	2.3889	.60768	18
Bar_Num_Num_Car	2.6667	.59409	18
Bar_Num_Num_Movie	2.3889	.60768	18
Bar_Ord_Num_Car	2.2778	.66911	18
Bar_Ord_Num_Movie	2.5556	.78382	18
Line_Nom_Num_Car	4.2222	1.00326	18
Line_Nom_Num_Movie	4.2778	.82644	18
Line_Num_Num_Car	3.8889	.96338	18
Line_Num_Num_Movie	4.0556	.87260	18
Line_Ord_Num_Car	4.3333	.90749	18
Line_Ord_Num_Movie	4.3333	.84017	18
Pie_Nom_Num_Car	2.8333	1.42457	18
Pie_Nom_Num_Movie	3.0000	1.23669	18
Pie_Num_Num_Car	3.0000	1.23669	18
Pie_Num_Num_Movie	3.2778	1.36363	18
Pie_Ord_Num_Car	3.2778	1.17851	18
Pie_Ord_Num_Movie	3.0556	1.30484	18
Scatter_Nom_Num_Car	4.0000	.59409	18
Scatter_Nom_Num_Movie	4.1667	.61835	18
Scatter_Num_Num_Car	4.4444	.61570	18
Scatter_Num_Num_Movie	4.2222	.54832	18
Scatter_Ord_Num_Car	4.0556	.41618	18
Scatter_Ord_Num_Movie	3.9444	.72536	18
Table_Nom_Num_Car	1.2778	.66911	18
Table_Nom_Num_Movie	1.1667	.70711	18
Table_Num_Num_Car	1.0000	.00000	18
Table_Num_Num_Movie	1.0556	.23570	18
Table_Ord_Num_Car	1.1111	.32338	18
Table_Ord_Num_Movie	1.1111	.47140	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.993	509.350[b]	4.000	14.000
	Wilks' Lambda	.007	509.350[b]	4.000	14.000
	Hotelling's Trace	145.528	509.350[b]	4.000	14.000
	Roy's Largest Root	145.528	509.350[b]	4.000	14.000
DataAttributeTypes	Pillai's Trace	.011	.191[b]	1.000	17.000
	Wilks' Lambda	.989	.191[b]	1.000	17.000
	Hotelling's Trace	.011	.191[b]	1.000	17.000
	Roy's Largest Root	.011	.191[b]	1.000	17.000
Dataset	Pillai's Trace	.011	.191[b]	1.000	17.000
	Wilks' Lambda	.989	.191[b]	1.000	17.000
	Hotelling's Trace	.011	.191[b]	1.000	17.000
	Roy's Largest Root	.011	.191[b]	1.000	17.000
Visualization * DataAttributeTypes	Pillai's Trace	.665	2.486[b]	8.000	10.000
	Wilks' Lambda	.335	2.486[b]	8.000	10.000
	Hotelling's Trace	1.989	2.486[b]	8.000	10.000
	Roy's Largest Root	1.989	2.486[b]	8.000	10.000
Visualization * Dataset	Pillai's Trace	.143	.586[b]	4.000	14.000
	Wilks' Lambda	.857	.586[b]	4.000	14.000
	Hotelling's Trace	.167	.586[b]	4.000	14.000
	Roy's Largest Root	.167	.586[b]	4.000	14.000
DataAttributeTypes * Dataset	Pillai's Trace	.011	.191[b]	1.000	17.000
	Wilks' Lambda	.989	.191[b]	1.000	17.000
	Hotelling's Trace	.011	.191[b]	1.000	17.000
	Roy's Largest Root	.011	.191[b]	1.000	17.000
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.738	3.516[b]	8.000	10.000
	Wilks' Lambda	.262	3.516[b]	8.000	10.000
	Hotelling's Trace	2.813	3.516[b]	8.000	10.000
	Roy's Largest Root	2.813	3.516[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.000	.993	2037.398
	Wilks' Lambda	.000	.993	2037.398
	Hotelling's Trace	.000	.993	2037.398
	Roy's Largest Root	.000	.993	2037.398
DataAttributeTypes	Pillai's Trace	.668	.011	.191
	Wilks' Lambda	.668	.011	.191
	Hotelling's Trace	.668	.011	.191
	Roy's Largest Root	.668	.011	.191
Dataset	Pillai's Trace	.668	.011	.191
	Wilks' Lambda	.668	.011	.191
	Hotelling's Trace	.668	.011	.191
	Roy's Largest Root	.668	.011	.191
Visualization * DataAttributeTypes	Pillai's Trace	.089	.665	19.891
	Wilks' Lambda	.089	.665	19.891
	Hotelling's Trace	.089	.665	19.891
	Roy's Largest Root	.089	.665	19.891
Visualization * Dataset	Pillai's Trace	.678	.143	2.343
	Wilks' Lambda	.678	.143	2.343
	Hotelling's Trace	.678	.143	2.343
	Roy's Largest Root	.678	.143	2.343
DataAttributeTypes * Dataset	Pillai's Trace	.668	.011	.191
	Wilks' Lambda	.668	.011	.191
	Hotelling's Trace	.668	.011	.191
	Roy's Largest Root	.668	.011	.191
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.033	.738	28.131
	Wilks' Lambda	.033	.738	28.131
	Hotelling's Trace	.033	.738	28.131
	Roy's Largest Root	.033	.738	28.131

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	1.000
	Wilks' Lambda	1.000
	Hotelling's Trace	1.000
	Roy's Largest Root	1.000
DataAttributeTypes	Pillai's Trace	.070
	Wilks' Lambda	.070
	Hotelling's Trace	.070
	Roy's Largest Root	.070
Dataset	Pillai's Trace	.070
	Wilks' Lambda	.070
	Hotelling's Trace	.070
	Roy's Largest Root	.070
Visualization * DataAttributeTypes	Pillai's Trace	.605
	Wilks' Lambda	.605
	Hotelling's Trace	.605
	Roy's Largest Root	.605
Visualization * Dataset	Pillai's Trace	.152
	Wilks' Lambda	.152
	Hotelling's Trace	.152
	Roy's Largest Root	.152
DataAttributeTypes * Dataset	Pillai's Trace	.070
	Wilks' Lambda	.070
	Hotelling's Trace	.070
	Roy's Largest Root	.070
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.778
	Wilks' Lambda	.778
	Hotelling's Trace	.778
	Roy's Largest Root	.778

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	.031	53.728	9	.000	.388
DataAttributeTypes	.000	.	2	.	.500
Dataset	1.000	.000	0	.	1.000
Visualization * DataAttributeTypes	.004	79.547	35	.000	.518
Visualization * Dataset	.492	10.927	9	.283	.758
DataAttributeTypes * Dataset	.000	.	2	.	.500
Visualization * DataAttributeTypes * Dataset	.013	60.959	35	.006	.538

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	.420	.250
DataAttributeTypes	.500	.500
Dataset	1.000	1.000
Visualization * DataAttributeTypes	.705	.125
Visualization * Dataset	.942	.250
DataAttributeTypes * Dataset	.500	.500
Visualization * DataAttributeTypes * Dataset	.743	.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	701.952	4	175.488	47.034
	Greenhouse-Geisser	701.952	1.552	452.182	47.034
	Huynh-Feldt	701.952	1.679	417.981	47.034
	Lower-bound	701.952	1.000	701.952	47.034
Error(Visualization)	Sphericity Assumed	253.715	68	3.731	
	Greenhouse-Geisser	253.715	26.390	9.614	
	Huynh-Feldt	253.715	28.550	8.887	
	Lower-bound	253.715	17.000	14.924	
DataAttributeTypes	Sphericity Assumed	.004	2	.002	.191
	Greenhouse-Geisser	.004	1.000	.004	.191
	Huynh-Feldt	.004	1.000	.004	.191
	Lower-bound	.004	1.000	.004	.191
Error(DataAttributeTypes)	Sphericity Assumed	.330	34	.010	
	Greenhouse-Geisser	.330	17.000	.019	
	Huynh-Feldt	.330	17.000	.019	
	Lower-bound	.330	17.000	.019	
Dataset	Sphericity Assumed	.002	1	.002	.191
	Greenhouse-Geisser	.002	1.000	.002	.191
	Huynh-Feldt	.002	1.000	.002	.191
	Lower-bound	.002	1.000	.002	.191
Error(Dataset)	Sphericity Assumed	.165	17	.010	
	Greenhouse-Geisser	.165	17.000	.010	
	Huynh-Feldt	.165	17.000	.010	
	Lower-bound	.165	17.000	.010	
Visualization * DataAttributeTypes	Sphericity Assumed	7.070	8	.884	2.656
	Greenhouse-Geisser	7.070	4.140	1.708	2.656

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.735	188.135
	Greenhouse-Geisser	.000	.735	73.014
	Huynh-Feldt	.000	.735	78.988
	Lower-bound	.000	.735	47.034
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes	Sphericity Assumed	.827	.011	.382
	Greenhouse-Geisser	.668	.011	.191
	Huynh-Feldt	.668	.011	.191
	Lower-bound	.668	.011	.191
Error(DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Dataset	Sphericity Assumed	.668	.011	.191
	Greenhouse-Geisser	.668	.011	.191
	Huynh-Feldt	.668	.011	.191
	Lower-bound	.668	.011	.191
Error(Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes	Sphericity Assumed	.010	.135	21.244
	Greenhouse-Geisser	.038	.135	10.995

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	1.000
	Greenhouse-Geisser	1.000
	Huynh-Feldt	1.000
	Lower-bound	1.000
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes	Sphericity Assumed	.077
	Greenhouse-Geisser	.070
	Huynh-Feldt	.070
	Lower-bound	.070
Error(DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Dataset	Sphericity Assumed	.070
	Greenhouse-Geisser	.070
	Huynh-Feldt	.070
	Lower-bound	.070
Error(Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes	Sphericity Assumed	.917
	Greenhouse-Geisser	.723

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	7.070	5.640	1.254	2.656
	Lower-bound	7.070	1.000	7.070	2.656
Error (Visualization*DataAttribute Types)	Sphericity Assumed	45.263	136	.333	
	Greenhouse-Geisser	45.263	70.388	.643	
	Huynh-Feldt	45.263	95.880	.472	
	Lower-bound	45.263	17.000	2.663	
Visualization * Dataset	Sphericity Assumed	.619	4	.155	.617
	Greenhouse-Geisser	.619	3.034	.204	.617
	Huynh-Feldt	.619	3.766	.164	.617
	Lower-bound	.619	1.000	.619	.617
Error(Visualization*Dataset)	Sphericity Assumed	17.048	68	.251	
	Greenhouse-Geisser	17.048	51.570	.331	
	Huynh-Feldt	17.048	64.029	.266	
	Lower-bound	17.048	17.000	1.003	
DataAttributeTypes * Dataset	Sphericity Assumed	.004	2	.002	.191
	Greenhouse-Geisser	.004	1.000	.004	.191
	Huynh-Feldt	.004	1.000	.004	.191
	Lower-bound	.004	1.000	.004	.191
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	.330	34	.010	
	Greenhouse-Geisser	.330	17.000	.019	
	Huynh-Feldt	.330	17.000	.019	
	Lower-bound	.330	17.000	.019	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	4.070	8	.509	1.496
	Greenhouse-Geisser	4.070	4.305	.945	1.496
	Huynh-Feldt	4.070	5.947	.684	1.496
	Lower-bound	4.070	1.000	4.070	1.496
Error (Visualization*DataAttributeTypes*Dataset)	Sphericity Assumed	46.263	136	.340	
	Greenhouse-Geisser	46.263	73.188	.632	
	Huynh-Feldt	46.263	101.095	.458	
	Lower-bound	46.263	17.000	2.721	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.022	.135	14.977
	Lower-bound	.122	.135	2.656
Error (Visualization*DataAttribute Types)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Dataset	Sphericity Assumed	.652	.035	2.467
	Greenhouse-Geisser	.609	.035	1.871
	Huynh-Feldt	.643	.035	2.323
	Lower-bound	.443	.035	.617
Error(Visualization*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes * Dataset	Sphericity Assumed	.827	.011	.382
	Greenhouse-Geisser	.668	.011	.191
	Huynh-Feldt	.668	.011	.191
	Lower-bound	.668	.011	.191
Error (DataAttributeTypes*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.164	.081	11.966
	Greenhouse-Geisser	.209	.081	6.439
	Huynh-Feldt	.188	.081	8.895
	Lower-bound	.238	.081	1.496
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	.824
	Lower-bound	.337
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Dataset	Sphericity Assumed	.193
	Greenhouse-Geisser	.170
	Huynh-Feldt	.188
	Lower-bound	.115
Error(Visualization*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes * Dataset	Sphericity Assumed	.077
	Greenhouse-Geisser	.070
	Huynh-Feldt	.070
	Lower-bound	.070
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.653
	Greenhouse-Geisser	.459
	Huynh-Feldt	.554
	Lower-bound	.211
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			83.890	1
	Quadratic			405.482	1
	Cubic			17.633	1
	Order 4			194.947	1
Error(Visualization)	Linear			33.427	17
	Quadratic			34.839	17
	Cubic			32.467	17
	Order 4			152.982	17
DataAttributeTypes		Linear		.003	1
		Quadratic		.001	1
Error(DataAttributeTypes)		Linear		.247	17
		Quadratic		.082	17
Dataset			Linear	.002	1
Error(Dataset)			Linear	.165	17
Visualization * DataAttributeTypes	Linear	Linear		.050	1
		Quadratic		.119	1
	Quadratic	Linear		1.147	1
		Quadratic		.190	1
	Cubic	Linear		.200	1
		Quadratic		4.817	1
	Order 4	Linear		.420	1
		Quadratic		.128	1
Error (Visualization*DataAttributeTypes)	Linear	Linear		3.750	17
		Quadratic		10.915	17
	Quadratic	Linear		2.639	17
		Quadratic		6.381	17
	Cubic	Linear		4.750	17
		Quadratic		4.233	17
	Order 4	Linear		2.544	17
		Quadratic		10.051	17
Visualization * Dataset	Linear		Linear	.001	1
	Quadratic		Linear	.292	1
	Cubic		Linear	.300	1
	Order 4		Linear	.026	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Visualization	Linear			83.890	42.664
	Quadratic			405.482	197.857
	Cubic			17.633	9.233
	Order 4			194.947	21.663
Error(Visualization)	Linear			1.966	
	Quadratic			2.049	
	Cubic			1.910	
	Order 4			8.999	
DataAttributeTypes		Linear		.003	.191
		Quadratic		.001	.191
Error(DataAttributeTypes)		Linear		.015	
		Quadratic		.005	
Dataset			Linear	.002	.191
Error(Dataset)			Linear	.010	
Visualization * DataAttributeTypes	Linear	Linear		.050	.227
		Quadratic		.119	.185
	Quadratic	Linear		1.147	7.388
		Quadratic		.190	.507
	Cubic	Linear		.200	.716
		Quadratic		4.817	19.343
	Order 4	Linear		.420	2.805
		Quadratic		.128	.217
Error (Visualization*DataAttributeTypes)	Linear	Linear		.221	
		Quadratic		.642	
	Quadratic	Linear		.155	
		Quadratic		.375	
	Cubic	Linear		.279	
		Quadratic		.249	
	Order 4	Linear		.150	
		Quadratic		.591	
Visualization * Dataset	Linear		Linear	.001	.004
	Quadratic		Linear	.292	1.496
	Cubic		Linear	.300	1.214
	Order 4		Linear	.026	.078

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Sig.	Partial Eta Squared
Visualization	Linear			.000	.715
	Quadratic			.000	.921
	Cubic			.007	.352
	Order 4			.000	.560
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeTypes		Linear		.668	.011
		Quadratic		.668	.011
Error(DataAttributeTypes)		Linear			
		Quadratic			
Dataset			Linear	.668	.011
Error(Dataset)			Linear		
Visualization * DataAttributeTypes	Linear	Linear		.640	.013
		Quadratic		.673	.011
	Quadratic	Linear		.015	.303
		Quadratic		.486	.029
	Cubic	Linear		.409	.040
		Quadratic		.000	.532
	Order 4	Linear		.112	.142
		Quadratic		.648	.013
Error (Visualization*DataAttributeTypes)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Dataset	Linear		Linear	.950	.000
	Quadratic		Linear	.238	.081
	Cubic		Linear	.286	.067
	Order 4		Linear	.783	.005

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Noncent. Parameter
Visualization	Linear			42.664
	Quadratic			197.857
	Cubic			9.233
	Order 4			21.663
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.191
		Quadratic		.191
Error(DataAttributeTypes)		Linear		
		Quadratic		
Dataset			Linear	.191
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.227
		Quadratic		.185
	Quadratic	Linear		7.388
		Quadratic		.507
	Cubic	Linear		.716
		Quadratic		19.343
	Order 4	Linear		2.805
		Quadratic		.217
Error (Visualization*DataAttributeTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.004
	Quadratic		Linear	1.496
	Cubic		Linear	1.214
	Order 4		Linear	.078

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Observed Power[a]
Visualization	Linear			1.000
	Quadratic			1.000
	Cubic			.817
	Order 4			.992
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.070
		Quadratic		.070
Error(DataAttributeTypes)		Linear		
		Quadratic		
Dataset			Linear	.070
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.073
		Quadratic		.069
	Quadratic	Linear		.726
		Quadratic		.103
	Cubic	Linear		.126
		Quadratic		.985
	Order 4	Linear		.352
		Quadratic		.072
Error (Visualization*DataAttributeTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.050
	Quadratic		Linear	.211
	Cubic		Linear	.180
	Order 4		Linear	.058

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Type III Sum of Squares	df
Error(Visualization*Dataset)	Linear		Linear	3.916	17
	Quadratic		Linear	3.315	17
	Cubic		Linear	4.200	17
	Order 4		Linear	5.617	17
DataAttributeTypes * Dataset		Linear	Linear	.003	1
		Quadratic	Linear	.001	1
Error (DataAttributeTypes*Dataset)		Linear	Linear	.247	17
		Quadratic	Linear	.082	17
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.556	1
		Quadratic	Linear	.091	1
	Quadratic	Linear	Linear	1.921	1
		Quadratic	Linear	.298	1
	Cubic	Linear	Linear	.000	1
		Quadratic	Linear	.817	1
	Order 4	Linear	Linear	.007	1
		Quadratic	Linear	.382	1
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	10.644	17
		Quadratic	Linear	5.543	17
	Quadratic	Linear	Linear	7.579	17
		Quadratic	Linear	3.131	17
	Cubic	Linear	Linear	2.550	17
		Quadratic	Linear	2.633	17
	Order 4	Linear	Linear	7.243	17
		Quadratic	Linear	6.939	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Error(Visualization*Dataset)	Linear		Linear	.230	
	Quadratic		Linear	.195	
	Cubic		Linear	.247	
	Order 4		Linear	.330	
DataAttributeTypes * Dataset		Linear	Linear	.003	.191
		Quadratic	Linear	.001	.191
Error (DataAttributeTypes*Dataset)		Linear	Linear	.015	
		Quadratic	Linear	.005	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.556	.887
		Quadratic	Linear	.091	.278
	Quadratic	Linear	Linear	1.921	4.308
		Quadratic	Linear	.298	1.616
	Cubic	Linear	Linear	.000	.000
		Quadratic	Linear	.817	5.272
	Order 4	Linear	Linear	.007	.017
		Quadratic	Linear	.382	.936
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	.626	
		Quadratic	Linear	.326	
	Quadratic	Linear	Linear	.446	
		Quadratic	Linear	.184	
	Cubic	Linear	Linear	.150	
		Quadratic	Linear	.155	
	Order 4	Linear	Linear	.426	
		Quadratic	Linear	.408	

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	.668	.011
		Quadratic	Linear	.668	.011
Error (DataAttributeTypes*Dataset)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.359	.050
		Quadratic	Linear	.605	.016
	Quadratic	Linear	Linear	.053	.202
		Quadratic	Linear	.221	.087
	Cubic	Linear	Linear	1.000	.000
		Quadratic	Linear	.035	.237
	Order 4	Linear	Linear	.898	.001
		Quadratic	Linear	.347	.052
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	.191
		Quadratic	Linear	.191
Error (DataAttributeTypes*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.887
		Quadratic	Linear	.278
	Quadratic	Linear	Linear	4.308
		Quadratic	Linear	1.616
	Cubic	Linear	Linear	.000
		Quadratic	Linear	5.272
	Order 4	Linear	Linear	.017
		Quadratic	Linear	.936
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	.070
		Quadratic	Linear	.070
Error (DataAttributeTypes*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.144
		Quadratic	Linear	.079
	Quadratic	Linear	Linear	.499
		Quadratic	Linear	.224
	Cubic	Linear	Linear	.050
		Quadratic	Linear	.581
	Order 4	Linear	Linear	.052
		Quadratic	Linear	.150
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	4866.002	1	4866.002	501908.955	.000	1.000
Error	.165	17	.010			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	501908.955	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
3.002	.004	2.993	3.011

2. Visualization

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
Visualization	Mean	Std. Error	Lower Bound	Upper Bound
1	2.491	.110	2.259	2.723
2	4.185	.191	3.781	4.589
3	3.074	.272	2.501	3.647
4	4.139	.107	3.913	4.365
5	1.120	.066	.982	1.259

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-1.694*	.177	.000	-2.264
	3	-.583	.336	1.000	-1.666
	4	-1.648*	.173	.000	-2.206
	5	1.370*	.153	.000	.878
2	1	1.694*	.177	.000	1.125
	3	1.111	.452	.250	-.345
	4	.046	.220	1.000	-.663
	5	3.065*	.186	.000	2.465
3	1	.583	.336	1.000	-.499
	2	-1.111	.452	.250	-2.567
	4	-1.065*	.323	.042	-2.105
	5	1.954*	.298	.000	.994
4	1	1.648*	.173	.000	1.091
	2	-.046	.220	1.000	-.756
	3	1.065*	.323	.042	.024
	5	3.019*	.115	.000	2.648
5	1	-1.370*	.153	.000	-1.863
	2	-3.065*	.186	.000	-3.665
	3	-1.954*	.298	.000	-2.914
	4	-3.019*	.115	.000	-3.389

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	-1.125
	3	.499
	4	-1.091
	5	1.863
2	1	2.264
	3	2.567
	4	.756
	5	3.665
3	1	1.666
	2	.345
	4	-.024
	5	2.914
4	1	2.206
	2	.663
	3	2.105
	5	3.389
5	1	-.878
	2	-2.465
	3	-.994
	4	-2.648

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	.993	509.350[a]	4.000	14.000	.000	.993
Wilks' lambda	.007	509.350[a]	4.000	14.000	.000	.993
Hotelling's trace	145.528	509.350[a]	4.000	14.000	.000	.993
Roy's largest root	145.528	509.350[a]	4.000	14.000	.000	.993

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	2037.398	1.000
Wilks' lambda	2037.398	1.000
Hotelling's trace	2037.398	1.000
Roy's largest root	2037.398	1.000

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

a. Exact statistic

b. Computed using alpha = .05

3. DataAttributeTypes

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
DataAttributeTypes	Mean	Std. Error	Lower Bound	Upper Bound
1	3.000	.000	3.000	3.000
2	3.000	.000	3.000	3.000
3	3.006	.013	2.979	3.032

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence [a]... Lower Bound
1	2	-2.776E-17	.000	.	-2.776E-17
	3	-.006	.013	1.000	-.039
2	1	2.776E-17	.000	.	2.776E-17
	3	-.006	.013	1.000	-.039
3	1	.006	.013	1.000	-.028
	2	.006	.013	1.000	-.028

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	95% Confidence Interval for [a]... Upper Bound
1	2	-2.776E-17
	3	.028
2	1	2.776E-17
	3	.028
3	1	.039
	2	.039

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	.011	.090[a]	2.000	16.000	.914	.011
Wilks' lambda	.989	.090[a]	2.000	16.000	.914	.011
Hotelling's trace	.011	.090[a]	2.000	16.000	.914	.011
Roy's largest root	.011	.090[a]	2.000	16.000	.914	.011

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	.180	.061
Wilks' lambda	.180	.061
Hotelling's trace	.180	.061
Roy's largest root	.180	.061

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

a. Exact statistic

b. Computed using alpha = .05

4. Visualization * DataAttributeTypes

Measure: MEASURE_1

				95% Confidence Interval	
Visualization	DataAttributeTypes	Mean	Std. Error	Lower Bound	Upper Bound
1	1	2.528	.131	2.252	2.804
	2	2.528	.124	2.265	2.790
	3	2.417	.147	2.106	2.727
2	1	4.250	.199	3.830	4.670
	2	3.972	.204	3.542	4.403
	3	4.333	.202	3.907	4.760
3	1	2.917	.292	2.300	3.533
	2	3.139	.282	2.543	3.735
	3	3.167	.280	2.576	3.758
4	1	4.083	.123	3.824	4.343
	2	4.333	.128	4.064	4.603
	3	4.000	.114	3.759	4.241
5	1	1.222	.129	.950	1.495
	2	1.028	.028	.969	1.086
	3	1.111	.086	.929	1.293