```
 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\Order\Order_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
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    Table_Ord_Num_Movie
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 2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(DataAttributTypes) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Visualization*DataAttributTypes)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Visualization DataAttributTypes Datasets Visualization*DataAttribu
tTypes
    Visualization*Datasets DataAttributTypes*Datasets Visualization*DataAttrib
utTypes*Datasets.
```

General Linear Model

Notes

Output Created		07-SEP-2016 13:05:26
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\Order\Order_Time.sav
	Active Dataset	DataSet1
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	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 DataAttributTypes 3 Polynomial Datasets 2 Polynomial /METHOD=SSTYPE(3) /EMMEANS=TABLES (OVERALL) /EMMEANS=TABLES (Visualization) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES (DataAttributTypes) COMPARE ADJ (BONFERRONI) /EMMEANS=TABLES (Visualization*DataAttributTypes) /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=Visualization DataAttributTypes Datasets Visualization*DataAttributTypes Visualization*Datasets DataAttributTypes*Datasets

Notes

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	Elapsed Time	00:00:00.02

[DataSet1] C:\Users\Bahador\Desktop\Analysis\Order\Order_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	DataAttributTypes	Datasets	Dependent Variable
1	1	1	Bar_Nom_Num_Car
		2	Bar_Nom_Num_Movie
	2	1	Bar_Num_Num_Car
		2	Bar_Num_Num_Movie
	3	1	Bar_Ord_Num_Car
		2	Bar_Ord_Num_Movie
2	1	1	Line_Nom_Num_Car
		2	Line_Nom_Num_Movie
	2	1	Line_Num_Num_Car
		2	Line_Num_Num_Movie
	3	1	Line_Ord_Num_Car
		2	Line_Ord_Num_Movie
3	1	1	Pie_Nom_Num_Car
		2	Pie_Nom_Num_Movie

Within-Subjects Factors

Measure: MEASURE_1

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

Descriptive Statistics

	Mean	Std. Deviation	N
Bar_Nom_Num_Car	16.5556	13.43491	18
Bar_Nom_Num_Movie	25.0000	8.38065	18
Bar_Num_Num_Car	28.2778	13.58115	18
Bar_Num_Num_Movie	22.5556	11.04654	18
Bar_Ord_Num_Car	21.8333	9.62992	18
Bar_Ord_Num_Movie	16.8333	5.72148	18
Line_Nom_Num_Car	23.8333	13.05756	18
Line_Nom_Num_Movie	27.6111	14.29166	18
Line_Num_Num_Car	37.8333	23.80867	18
Line_Num_Num_Movie	24.6111	13.23604	18
Line_Ord_Num_Car	19.5556	11.58205	18
Line_Ord_Num_Movie	22.7778	7.84823	18
Pie_Nom_Num_Car	33.3333	20.65971	18
Pie_Nom_Num_Movie	30.1111	14.42175	18
Pie_Num_Num_Car	32.7778	20.70111	18
Pie_Num_Num_Movie	32.1111	18.58490	18
Pie_Ord_Num_Car	33.1667	13.90831	18
Pie_Ord_Num_Movie	41.1111	23.23509	18
Scatter_Nom_Num_Car	29.1111	17.23843	18
Scatter_Nom_Num_Movie	22.3333	10.36396	18
Scatter_Num_Num_Car	40.9444	23.67543	18
Scatter_Num_Num_Movie	40.7222	38.03993	18
Scatter_Ord_Num_Car	17.8889	7.75271	18
Scatter_Ord_Num_Movie	20.6667	10.67708	18
Table_Nom_Num_Car	30.3333	11.47888	18
Table_Nom_Num_Movie	32.8889	16.99442	18
Table_Num_Num_Car	36.2778	18.28148	18
Table_Num_Num_Movie	28.4444	14.02612	18
Table_Ord_Num_Car	28.8889	13.90679	18
Table_Ord_Num_Movie	25.2222	8.98728	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.705	8.369[b]	4.000	14.000
	Wilks' Lambda	.295	8.369[b]	4.000	14.000
	Hotelling's Trace	2.391	8.369[b]	4.000	14.000
	Roy's Largest Root	2.391	8.369[b]	4.000	14.000
DataAttributTypes	Pillai's Trace	.396	5.238[b]	2.000	16.000
	Wilks' Lambda	.604	5.238[b]	2.000	16.000
	Hotelling's Trace	.655	5.238[b]	2.000	16.000
	Roy's Largest Root	.655	5.238[b]	2.000	16.000
Datasets	Pillai's Trace	.035	.611[b]	1.000	17.000
	Wilks' Lambda	.965	.611[b]	1.000	17.000
	Hotelling's Trace	.036	.611[b]	1.000	17.000
	Roy's Largest Root	.036	.611[b]	1.000	17.000
Visualization * DataAttributTypes	Pillai's Trace	.648	2.305[b]	8.000	10.000
	Wilks' Lambda	.352	2.305[b]	8.000	10.000
	Hotelling's Trace	1.844	2.305[b]	8.000	10.000
	Roy's Largest Root	1.844	2.305[b]	8.000	10.000
Visualization * Datasets	Pillai's Trace	.080	.303[b]	4.000	14.000
	Wilks' Lambda	.920	.303[b]	4.000	14.000
	Hotelling's Trace	.086	.303[b]	4.000	14.000
	Roy's Largest Root	.086	.303[b]	4.000	14.000
DataAttributTypes * Datasets	Pillai's Trace	.175	1.694[b]	2.000	16.000
	Wilks' Lambda	.825	1.694[b]	2.000	16.000
	Hotelling's Trace	.212	1.694[b]	2.000	16.000
	Roy's Largest Root	.212	1.694[b]	2.000	16.000
Visualization * DataAttributTypes * Datasets	Pillai's Trace	.774	4.284[b]	8.000	10.000
	Wilks' Lambda	.226	4.284[b]	8.000	10.000
	Hotelling's Trace	3.427	4.284[b]	8.000	10.000
	Roy's Largest Root	3.427	4.284[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.001	.705	33.474
	Wilks' Lambda	.001	.705	33.474
	Hotelling's Trace	.001	.705	33.474
	Roy's Largest Root	.001	.705	33.474
DataAttributTypes	Pillai's Trace	.018	.396	10.476
	Wilks' Lambda	.018	.396	10.476
	Hotelling's Trace	.018	.396	10.476
	Roy's Largest Root	.018	.396	10.476
Datasets	Pillai's Trace	.445	.035	.611
	Wilks' Lambda	.445	.035	.611
	Hotelling's Trace	.445	.035	.611
	Roy's Largest Root	.445	.035	.611
Visualization * DataAttributTypes	Pillai's Trace	.108	.648	18.439
	Wilks' Lambda	.108	.648	18.439
	Hotelling's Trace	.108	.648	18.439
	Roy's Largest Root	.108	.648	18.439
Visualization * Datasets	Pillai's Trace	.871	.080	1.211
	Wilks' Lambda	.871	.080	1.211
	Hotelling's Trace	.871	.080	1.211
	Roy's Largest Root	.871	.080	1.211
DataAttributTypes * Datasets	Pillai's Trace	.215	.175	3.388
	Wilks' Lambda	.215	.175	3.388
	Hotelling's Trace	.215	.175	3.388
	Roy's Largest Root	.215	.175	3.388
Visualization * DataAttributTypes * Datasets	Pillai's Trace	.018	.774	34.272
	Wilks' Lambda	.018	.774	34.272
	Hotelling's Trace	.018	.774	34.272
	Roy's Largest Root	.018	.774	34.272

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	.985
	Wilks' Lambda	.985
	Hotelling's Trace	.985
	Roy's Largest Root	.985
DataAttributTypes	Pillai's Trace	.753
	Wilks' Lambda	.753
	Hotelling's Trace	.753
	Roy's Largest Root	.753
Datasets	Pillai's Trace	.114
	Wilks' Lambda	.114
	Hotelling's Trace	.114
	Roy's Largest Root	.114
Visualization * DataAttributTypes	Pillai's Trace	.568
	Wilks' Lambda	.568
	Hotelling's Trace	.568
	Roy's Largest Root	.568
Visualization * Datasets	Pillai's Trace	.099
	Wilks' Lambda	.099
	Hotelling's Trace	.099
	Roy's Largest Root	.099
DataAttributTypes * Datasets	Pillai's Trace	.303
	Wilks' Lambda	.303
	Hotelling's Trace	.303
	Roy's Largest Root	.303
Visualization * DataAttributTypes * Datasets	Pillai's Trace	.863
	Wilks' Lambda	.863
	Hotelling's Trace	.863
	Roy's Largest Root	.863

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

b. Exact statistic

c.

c. Computed using alpha = .05

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser
Visualization	.333	16.944	9	.051	.596
DataAttributTypes	.635	7.272	2	.026	.732
Datasets	1.000	.000	0	.	1.000
Visualization * DataAttributTypes	.018	57.082	35	.014	.541
Visualization * Datasets	.732	4.817	9	.851	.861
DataAttributTypes * Datasets	.847	2.649	2	.266	.868
Visualization * DataAttributTypes * Datasets	.005	75.381	35	.000	.407

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	.700	.250
DataAttributTypes	.784	.500
Datasets	1.000	1.000
Visualization * DataAttributTypes	.749	.125
Visualization * Datasets	1.000	.250
DataAttributTypes * Datasets	.958	.500
Visualization * DataAttributTypes * Datasets	.515	.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 + DataAttributTypes + Datasets + Visualization * DataAttributTypes + Visualization * Datasets + DataAttributTypes * Datasets + Visualization * DataAttributTypes * Datasets

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
Visualization	Sphericity Assumed	8729.796	4	2182.449	8.282
	Greenhouse-Geisser	8729.796	2.384	3661.575	8.282
	Huynh-Feldt	8729.796	2.799	3118.499	8.282
	Lower-bound	8729.796	1.000	8729.796	8.282
Error(Visualization)	Sphericity Assumed	17920.204	68	263.532	
	Greenhouse-Geisser	17920.204	40.531	442.138	
	Huynh-Feldt	17920.204	47.589	376.561	
	Lower-bound	17920.204	17.000	1054.130	
DataAttributTypes	Sphericity Assumed	5557.359	2	2778.680	8.073
	Greenhouse-Geisser	5557.359	1.465	3793.598	8.073
	Huynh-Feldt	5557.359	1.569	3542.813	8.073
	Lower-bound	5557.359	1.000	5557.359	8.073
Error(DataAttributTypes)	Sphericity Assumed	11702.907	34	344.203	
	Greenhouse-Geisser	11702.907	24.904	469.924	
	Huynh-Feldt	11702.907	26.667	438.859	
	Lower-bound	11702.907	17.000	688.406	
Datasets	Sphericity Assumed	186.091	1	186.091	.611
	Greenhouse-Geisser	186.091	1.000	186.091	.611
	Huynh-Feldt	186.091	1.000	186.091	.611
	Lower-bound	186.091	1.000	186.091	.611
Error(Datasets)	Sphericity Assumed	5174.143	17	304.361	
	Greenhouse-Geisser	5174.143	17.000	304.361	
	Huynh-Feldt	5174.143	17.000	304.361	
	Lower-bound	5174.143	17.000	304.361	
Visualization * DataAttributTypes	Sphericity Assumed	7025.993	8	878.249	3.957
	Greenhouse-Geisser	7025.993	4.329	1622.930	3.957

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.328	33.126
	Greenhouse-Geisser	.001	.328	19.745
	Huynh-Feldt	.000	.328	23.183
	Lower-bound	.010	.328	8.282
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributTypes	Sphericity Assumed	.001	.322	16.146
	Greenhouse-Geisser	.004	.322	11.826
	Huynh-Feldt	.003	.322	12.663
	Lower-bound	.011	.322	8.073
Error(DataAttributTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Datasets	Sphericity Assumed	.445	.035	.611
	Greenhouse-Geisser	.445	.035	.611
	Huynh-Feldt	.445	.035	.611
	Lower-bound	.445	.035	.611
Error(Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributTypes	Sphericity Assumed	.000	.189	31.658
	Greenhouse-Geisser	.005	.189	17.132

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	.998
	Greenhouse-Geisser	.970
	Huynh-Feldt	.984
	Lower-bound	.774
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributTypes	Sphericity Assumed	.940
	Greenhouse-Geisser	.873
	Huynh-Feldt	.890
	Lower-bound	.764
Error(DataAttributTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Datasets	Sphericity Assumed	.114
	Greenhouse-Geisser	.114
	Huynh-Feldt	.114
	Lower-bound	.114
Error(Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributTypes	Sphericity Assumed	.989
	Greenhouse-Geisser	.905

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	7025.993	5.992	1172.528	3.957
	Lower-bound	7025.993	1.000	7025.993	3.957
Error (Visualization*DataAttributTypes)	Sphericity Assumed	30183.407	136	221.937	
	Greenhouse-Geisser	30183.407	73.596	410.120	
	Huynh-Feldt	30183.407	101.867	296.302	
	Lower-bound	30183.407	17.000	1775.495	
Visualization * Datasets	Sphericity Assumed	288.456	4	72.114	.351
	Greenhouse-Geisser	288.456	3.445	83.733	.351
	Huynh-Feldt	288.456	4.000	72.114	.351
	Lower-bound	288.456	1.000	288.456	.351
Error (Visualization*Datasets)	Sphericity Assumed	13959.811	68	205.291	
	Greenhouse-Geisser	13959.811	58.564	238.368	
	Huynh-Feldt	13959.811	68.000	205.291	
	Lower-bound	13959.811	17.000	821.165	
DataAttributTypes * Datasets	Sphericity Assumed	1282.937	2	641.469	2.241
	Greenhouse-Geisser	1282.937	1.735	739.353	2.241
	Huynh-Feldt	1282.937	1.915	669.900	2.241
	Lower-bound	1282.937	1.000	1282.937	2.241
Error (DataAttributTypes*Datasets)	Sphericity Assumed	9731.330	34	286.216	
	Greenhouse-Geisser	9731.330	29.499	329.891	
	Huynh-Feldt	9731.330	32.557	298.901	
	Lower-bound	9731.330	17.000	572.431	
Visualization * DataAttributTypes * Datasets	Sphericity Assumed	3080.156	8	385.019	2.262
	Greenhouse-Geisser	3080.156	3.258	945.277	2.262
	Huynh-Feldt	3080.156	4.123	747.118	2.262
	Lower-bound	3080.156	1.000	3080.156	2.262
Error (Visualization*DataAttributTypes*Datasets)	Sphericity Assumed	23152.578	136	170.240	
	Greenhouse-Geisser	23152.578	55.394	417.962	
	Huynh-Feldt	23152.578	70.086	330.344	
	Lower-bound	23152.578	17.000	1361.916	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.001	.189	23.712
	Lower-bound	.063	.189	3.957
Error (Visualization*DataAttributTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Datasets	Sphericity Assumed	.842	.020	1.405
	Greenhouse-Geisser	.815	.020	1.210
	Huynh-Feldt	.842	.020	1.405
	Lower-bound	.561	.020	.351
Error (Visualization*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributTypes * Datasets	Sphericity Assumed	.122	.116	4.482
	Greenhouse-Geisser	.130	.116	3.889
	Huynh-Feldt	.124	.116	4.292
	Lower-bound	.153	.116	2.241
Error (DataAttributTypes*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributTypes * Datasets	Sphericity Assumed	.027	.117	18.093
	Greenhouse-Geisser	.086	.117	7.369
	Huynh-Feldt	.069	.117	9.324
	Lower-bound	.151	.117	2.262
Error (Visualization*DataAttributTypes*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
	Huynh-Feldt	.963
	Lower-bound	.467
Error (Visualization*DataAttributTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Datasets	Sphericity Assumed	.125
	Greenhouse-Geisser	.119
	Huynh-Feldt	.125
	Lower-bound	.087
Error (Visualization*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributTypes * Datasets	Sphericity Assumed	.425
	Greenhouse-Geisser	.392
	Huynh-Feldt	.415
	Lower-bound	.293
Error (DataAttributTypes*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributTypes * Datasets	Sphericity Assumed	.858
	Greenhouse-Geisser	.565
	Huynh-Feldt	.642
	Lower-bound	.295
Error (Visualization*DataAttributTypes*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Type III Sum of Squares	df
Visualization	Linear			4137.959	1
	Quadratic			2448.265	1
	Cubic			121.337	1
	Order 4			2022.235	1
Error(Visualization)	Linear			2417.441	17
	Quadratic			5616.735	17
	Cubic			5570.930	17
	Order 4			4315.098	17
DataAttributTypes		Linear		483.025	1
		Quadratic		5074.334	1
Error(DataAttributTypes)		Linear		2403.125	17
		Quadratic		9299.782	17
Datasets			Linear	186.091	1
Error(Datasets)			Linear	5174.143	17
Visualization * DataAttributTypes	Linear	Linear		118.422	1
		Quadratic		83.230	1
	Quadratic	Linear		180.036	1
		Quadratic		49.271	1
	Cubic	Linear		.800	1
		Quadratic		1319.141	1
	Order 4	Linear		1278.064	1
		Quadratic		3997.029	1
Error (Visualization*DataAttributTypes)	Linear	Linear		1231.328	17
		Quadratic		4505.220	17
	Quadratic	Linear		2383.571	17
		Quadratic		6874.550	17
	Cubic	Linear		1367.950	17
		Quadratic		6454.243	17
	Order 4	Linear		4255.429	17
		Quadratic		3111.116	17
Visualization * Datasets	Linear		Linear	38.533	1
	Quadratic		Linear	86.669	1
	Cubic		Linear	34.133	1
	Order 4		Linear	129.120	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Mean Square	F
Visualization	Linear			4137.959	29.099
	Quadratic			2448.265	7.410
	Cubic			121.337	.370
	Order 4			2022.235	7.967
Error(Visualization)	Linear			142.202	
	Quadratic			330.396	
	Cubic			327.702	
	Order 4			253.829	
DataAttributTypes		Linear		483.025	3.417
		Quadratic		5074.334	9.276
Error(DataAttributTypes)		Linear		141.360	
		Quadratic		547.046	
Datasets			Linear	186.091	.611
Error(Datasets)			Linear	304.361	
Visualization * DataAttributTypes	Linear	Linear		118.422	1.635
		Quadratic		83.230	.314
	Quadratic	Linear		180.036	1.284
		Quadratic		49.271	.122
	Cubic	Linear		.800	.010
		Quadratic		1319.141	3.475
	Order 4	Linear		1278.064	5.106
		Quadratic		3997.029	21.841
Error (Visualization*DataAttributTypes)	Linear	Linear		72.431	
		Quadratic		265.013	
	Quadratic	Linear		140.210	
		Quadratic		404.385	
	Cubic	Linear		80.468	
		Quadratic		379.661	
	Order 4	Linear		250.319	
		Quadratic		183.007	
Visualization * Datasets	Linear		Linear	38.533	.319
	Quadratic		Linear	86.669	.424
	Cubic		Linear	34.133	.170
	Order 4		Linear	129.120	.438

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Sig.	Partial Eta Squared
Visualization	Linear			.000	.631
	Quadratic			.014	.304
	Cubic			.551	.021
	Order 4			.012	.319
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributTypes		Linear		.082	.167
		Quadratic		.007	.353
Error(DataAttributTypes)		Linear			
		Quadratic			
Datasets			Linear	.445	.035
Error(Datasets)			Linear		
Visualization * DataAttributTypes	Linear	Linear		.218	.088
		Quadratic		.583	.018
	Quadratic	Linear		.273	.070
		Quadratic		.731	.007
	Cubic	Linear		.922	.001
		Quadratic		.080	.170
	Order 4	Linear		.037	.231
		Quadratic		.000	.562
Error (Visualization*DataAttributTypes)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Datasets	Linear		Linear	.579	.018
	Quadratic		Linear	.524	.024
	Cubic		Linear	.686	.010
	Order 4		Linear	.517	.025

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Noncent. Parameter
Visualization	Linear			29.099
	Quadratic			7.410
	Cubic			.370
	Order 4			7.967
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributTypes		Linear		3.417
		Quadratic		9.276
Error(DataAttributTypes)		Linear		
		Quadratic		
Datasets			Linear	.611
Error(Datasets)			Linear	
Visualization * DataAttributTypes	Linear	Linear		1.635
		Quadratic		.314
	Quadratic	Linear		1.284
		Quadratic		.122
	Cubic	Linear		.010
		Quadratic		3.475
	Order 4	Linear		5.106
		Quadratic		21.841
Error (Visualization*DataAttributTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Datasets	Linear		Linear	.319
	Quadratic		Linear	.424
	Cubic		Linear	.170
	Order 4		Linear	.438

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Observed Power[a]
Visualization	Linear			.999
	Quadratic			.728
	Cubic			.089
	Order 4			.758
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributTypes		Linear		.415
		Quadratic		.819
Error(DataAttributTypes)		Linear		
		Quadratic		
Datasets			Linear	.114
Error(Datasets)			Linear	
Visualization * DataAttributTypes	Linear	Linear		.227
		Quadratic		.083
	Quadratic	Linear		.188
		Quadratic		.063
	Cubic	Linear		.051
		Quadratic		.420
	Order 4	Linear		.568
		Quadratic		.993
Error (Visualization*DataAttributTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Datasets	Linear		Linear	.083
	Quadratic		Linear	.094
	Cubic		Linear	.068
	Order 4		Linear	.096

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Type III Sum of Squares	df
Error (Visualization*Datasets)	Linear		Linear	2050.467	17
	Quadratic		Linear	3478.712	17
	Cubic		Linear	3423.200	17
	Order 4		Linear	5007.433	17
DataAttributTypes * Datasets		Linear	Linear	.225	1
		Quadratic	Linear	1282.712	1
Error (DataAttributTypes*Datasets)		Linear	Linear	3340.525	17
		Quadratic	Linear	6390.805	17
Visualization * DataAttributTypes * Datasets	Linear	Linear	Linear	271.339	1
		Quadratic	Linear	212.817	1
	Quadratic	Linear	Linear	1605.143	1
		Quadratic	Linear	30.561	1
	Cubic	Linear	Linear	76.050	1
		Quadratic	Linear	814.017	1
	Order 4	Linear	Linear	8.257	1
		Quadratic	Linear	61.972	1
Error (Visualization*DataAttributTypes*Datasets)	Linear	Linear	Linear	948.011	17
		Quadratic	Linear	3091.033	17
	Quadratic	Linear	Linear	1739.893	17
		Quadratic	Linear	1659.308	17
	Cubic	Linear	Linear	1408.100	17
		Quadratic	Linear	6737.300	17
	Order 4	Linear	Linear	3117.207	17
		Quadratic	Linear	4451.725	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Mean Square	F
Error (Visualization*Datasets)	Linear		Linear	120.616	
	Quadratic		Linear	204.630	
	Cubic		Linear	201.365	
	Order 4		Linear	294.555	
DataAttributTypes * Datasets		Linear	Linear	.225	.001
		Quadratic	Linear	1282.712	3.412
Error (DataAttributTypes*Datasets)		Linear	Linear	196.501	
		Quadratic	Linear	375.930	
Visualization * DataAttributTypes * Datasets	Linear	Linear	Linear	271.339	4.866
		Quadratic	Linear	212.817	1.170
	Quadratic	Linear	Linear	1605.143	15.683
		Quadratic	Linear	30.561	.313
	Cubic	Linear	Linear	76.050	.918
		Quadratic	Linear	814.017	2.054
	Order 4	Linear	Linear	8.257	.045
		Quadratic	Linear	61.972	.237
Error (Visualization*DataAttributTypes*Datasets)	Linear	Linear	Linear	55.765	
		Quadratic	Linear	181.825	
	Quadratic	Linear	Linear	102.347	
		Quadratic	Linear	97.606	
	Cubic	Linear	Linear	82.829	
		Quadratic	Linear	396.312	
	Order 4	Linear	Linear	183.365	
		Quadratic	Linear	261.866	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Sig.	Partial Eta Squared
Error (Visualization*Datasets)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributTypes * Datasets		Linear	Linear	.973	.000
		Quadratic	Linear	.082	.167
Error (DataAttributTypes*Datasets)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributTypes * Datasets	Linear	Linear	Linear	.041	.223
		Quadratic	Linear	.294	.064
	Quadratic	Linear	Linear	.001	.480
		Quadratic	Linear	.583	.018
	Cubic	Linear	Linear	.351	.051
		Quadratic	Linear	.170	.108
	Order 4	Linear	Linear	.834	.003
		Quadratic	Linear	.633	.014
Error (Visualization*DataAttributTypes*Datasets)	Linear	Linear	Linear		
		Quadratic	Linear		
	Quadratic	Linear	Linear		
		Quadratic	Linear		
	Cubic	Linear	Linear		
		Quadratic	Linear		
	Order 4	Linear	Linear		
		Quadratic	Linear		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Noncent. Parameter
Error (Visualization*Datasets)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributTypes * Datasets		Linear	Linear	.001
		Quadratic	Linear	3.412
Error (DataAttributTypes*Datasets)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributTypes * Datasets	Linear	Linear	Linear	4.866
		Quadratic	Linear	1.170
	Quadratic	Linear	Linear	15.683
		Quadratic	Linear	.313
	Cubic	Linear	Linear	.918
		Quadratic	Linear	2.054
	Order 4	Linear	Linear	.045
		Quadratic	Linear	.237
Error (Visualization*DataAttributTypes*Datasets)	Linear	Linear	Linear	
		Quadratic	Linear	
	Quadratic	Linear	Linear	
		Quadratic	Linear	
	Cubic	Linear	Linear	
		Quadratic	Linear	
	Order 4	Linear	Linear	
		Quadratic	Linear	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributTypes	Datasets	Observed Power[a]
Error (Visualization*Datasets)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributTypes * Datasets		Linear	Linear	.050
		Quadratic	Linear	.414
Error (DataAttributTypes*Datasets)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributTypes * Datasets	Linear	Linear	Linear	.548
		Quadratic	Linear	.175
	Quadratic	Linear	Linear	.961
		Quadratic	Linear	.083
	Cubic	Linear	Linear	.148
		Quadratic	Linear	.272
	Order 4	Linear	Linear	.055
		Quadratic	Linear	.075
Error (Visualization*DataAttributTypes*Datasets)	Linear	Linear	Linear	
		Quadratic	Linear	
	Quadratic	Linear	Linear	
		Quadratic	Linear	
	Cubic	Linear	Linear	
		Quadratic	Linear	
	Order 4	Linear	Linear	
		Quadratic	Linear	

a. Computed using alpha = .05

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	427007.824	1	427007.824	311.390	.000	.948
Error	23312.009	17	1371.295			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	311.390	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
28.120	1.594	24.758	31.482

2. Visualization

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
Visualization	Mean	Std. Error	Lower Bound	Upper Bound
1	21.843	1.601	18.464	25.221
2	26.037	2.107	21.591	30.483
3	33.769	2.838	27.780	39.757
4	28.611	2.123	24.132	33.090
5	30.343	1.700	26.756	33.929

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-4.194	1.637	.202	-9.468
	3	-11.926*	2.542	.002	-20.116
	4	-6.769*	2.055	.043	-13.389
	5	-8.500*	1.628	.001	-13.745
2	1	4.194	1.637	.202	-1.079
	3	-7.731	2.928	.172	-17.168
	4	-2.574	2.460	1.000	-10.502
	5	-4.306	1.443	.083	-8.956
3	1	11.926*	2.542	.002	3.736
	2	7.731	2.928	.172	-1.705
	4	5.157	1.861	.131	-.839
	5	3.426	2.693	1.000	-5.254
4	1	6.769*	2.055	.043	.148
	2	2.574	2.460	1.000	-5.354
	3	-5.157	1.861	.131	-11.154
	5	-1.731	2.317	1.000	-9.197
5	1	8.500*	1.628	.001	3.255
	2	4.306	1.443	.083	-.344
	3	-3.426	2.693	1.000	-12.105
	4	1.731	2.317	1.000	-5.734

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	1.079
	3	-3.736
	4	-.148
	5	-3.255
2	1	9.468
	3	1.705
	4	5.354
	5	.344
3	1	20.116
	2	17.168
	4	11.154
	5	12.105
4	1	13.389
	2	10.502
	3	.839
	5	5.734
5	1	13.745
	2	8.956
	3	5.254
	4	9.197

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	.705	8.369[a]	4.000	14.000	.001	.705
Wilks' lambda	.295	8.369[a]	4.000	14.000	.001	.705
Hotelling's trace	2.391	8.369[a]	4.000	14.000	.001	.705
Roy's largest root	2.391	8.369[a]	4.000	14.000	.001	.705

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	33.474	.985
Wilks' lambda	33.474	.985
Hotelling's trace	33.474	.985
Roy's largest root	33.474	.985

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. DataAttributTypes

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
DataAttributTypes	Mean	Std. Error	Lower Bound	Upper Bound
1	27.111	1.928	23.044	31.178
2	32.456	2.494	27.194	37.717
3	24.794	1.228	22.204	27.385

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributTypes	(J) DataAttributTypes	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	-5.344	2.123	.066	-10.981
	3	2.317	1.253	.246	-1.011
2	1	5.344	2.123	.066	-.292
	3	7.661*	2.323	.013	1.494
3	1	-2.317	1.253	.246	-5.644
	2	-7.661*	2.323	.013	-13.828

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributTypes	(J) DataAttributTypes	95% Confidence Interval for [b]... Upper Bound
1	2	.292
	3	5.644
2	1	10.981
	3	13.828
3	1	1.011
	2	-1.494

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	.396	5.238[a]	2.000	16.000	.018	.396
Wilks' lambda	.604	5.238[a]	2.000	16.000	.018	.396
Hotelling's trace	.655	5.238[a]	2.000	16.000	.018	.396
Roy's largest root	.655	5.238[a]	2.000	16.000	.018	.396

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	10.476	.753
Wilks' lambda	10.476	.753
Hotelling's trace	10.476	.753
Roy's largest root	10.476	.753

Each F tests the multivariate effect of DataAttributTypes. 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 * DataAttributTypes

Measure: MEASURE_1

Visualization	DataAttributTypes	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	20.778	1.963	16.636	24.919
	2	25.417	2.472	20.200	30.633
	3	19.333	1.389	16.404	22.263
2	1	25.722	2.367	20.729	30.716
	2	31.222	3.640	23.543	38.902
	3	21.167	1.774	17.424	24.909
3	1	31.722	3.553	24.227	39.218
	2	32.444	4.253	23.472	41.417
	3	37.139	3.673	29.390	44.888
4	1	25.722	2.237	21.002	30.442
	2	40.833	5.320	29.610	52.057
	3	19.278	1.788	15.505	23.051
5	1	31.611	2.616	26.092	37.131
	2	32.361	3.222	25.564	39.159
	3	27.056	2.000	22.836	31.275