```
 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_Accuracy.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 13:18:05
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\Retrieve\Retrieve_Accuracy.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	00:00:00.02
	Elapsed Time	00:00:00.02

[DataSet1] C:\Users\Bahador\Desktop\Analysis\Retrieve\Retrieve_Accuracy.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	100.0000	.00000	18
Bar_Nom_Num_Movie	94.4444	23.57023	18
Bar_Num_Num_Car	100.0000	.00000	18
Bar_Num_Num_Movie	100.0000	.00000	18
Bar_Ord_Num_Car	88.8889	32.33808	18
Bar_Ord_Num_Movie	94.4444	23.57023	18
Line_Nom_Num_Car	66.6667	48.50713	18
Line_Nom_Num_Movie	94.4444	23.57023	18
Line_Num_Num_Car	83.3333	38.34825	18
Line_Num_Num_Movie	55.5556	51.13100	18
Line_Ord_Num_Car	83.3333	38.34825	18
Line_Ord_Num_Movie	94.4444	23.57023	18
Pie_Nom_Num_Car	94.4444	23.57023	18
Pie_Nom_Num_Movie	94.4444	23.57023	18
Pie_Num_Num_Car	94.4444	23.57023	18
Pie_Num_Num_Movie	83.3333	38.34825	18
Pie_Ord_Num_Car	94.4444	23.57023	18
Pie_Ord_Num_Movie	94.4444	23.57023	18
Scatter_Nom_Num_Car	100.0000	.00000	18
Scatter_Nom_Num_Movie	94.4444	23.57023	18
Scatter_Num_Num_Car	83.3333	38.34825	18
Scatter_Num_Num_Movie	72.2222	46.08886	18
Scatter_Ord_Num_Car	94.4444	23.57023	18
Scatter_Ord_Num_Movie	88.8889	32.33808	18
Table_Nom_Num_Car	100.0000	.00000	18
Table_Nom_Num_Movie	100.0000	.00000	18
Table_Num_Num_Car	94.4444	23.57023	18
Table_Num_Num_Movie	94.4444	23.57023	18
Table_Ord_Num_Car	94.4444	23.57023	18
Table_Ord_Num_Movie	94.4444	23.57023	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.750	10.483[b]	4.000	14.000
	Wilks' Lambda	.250	10.483[b]	4.000	14.000
	Hotelling's Trace	2.995	10.483[b]	4.000	14.000
	Roy's Largest Root	2.995	10.483[b]	4.000	14.000
DataAttributeTypes	Pillai's Trace	.527	8.907[b]	2.000	16.000
	Wilks' Lambda	.473	8.907[b]	2.000	16.000
	Hotelling's Trace	1.113	8.907[b]	2.000	16.000
	Roy's Largest Root	1.113	8.907[b]	2.000	16.000
Dataset	Pillai's Trace	.019	.335[b]	1.000	17.000
	Wilks' Lambda	.981	.335[b]	1.000	17.000
	Hotelling's Trace	.020	.335[b]	1.000	17.000
	Roy's Largest Root	.020	.335[b]	1.000	17.000
Visualization * DataAttributeTypes	Pillai's Trace	.858	7.529[b]	8.000	10.000
	Wilks' Lambda	.142	7.529[b]	8.000	10.000
	Hotelling's Trace	6.023	7.529[b]	8.000	10.000
	Roy's Largest Root	6.023	7.529[b]	8.000	10.000
Visualization * Dataset	Pillai's Trace	.157	.652[b]	4.000	14.000
	Wilks' Lambda	.843	.652[b]	4.000	14.000
	Hotelling's Trace	.186	.652[b]	4.000	14.000
	Roy's Largest Root	.186	.652[b]	4.000	14.000
DataAttributeTypes * Dataset	Pillai's Trace	.353	4.358[b]	2.000	16.000
	Wilks' Lambda	.647	4.358[b]	2.000	16.000
	Hotelling's Trace	.545	4.358[b]	2.000	16.000
	Roy's Largest Root	.545	4.358[b]	2.000	16.000
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.638	2.201[b]	8.000	10.000
	Wilks' Lambda	.362	2.201[b]	8.000	10.000
	Hotelling's Trace	1.761	2.201[b]	8.000	10.000
	Roy's Largest Root	1.761	2.201[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.000	.750	41.934
	Wilks' Lambda	.000	.750	41.934
	Hotelling's Trace	.000	.750	41.934
	Roy's Largest Root	.000	.750	41.934
DataAttributeTypes	Pillai's Trace	.003	.527	17.815
	Wilks' Lambda	.003	.527	17.815
	Hotelling's Trace	.003	.527	17.815
	Roy's Largest Root	.003	.527	17.815
Dataset	Pillai's Trace	.570	.019	.335
	Wilks' Lambda	.570	.019	.335
	Hotelling's Trace	.570	.019	.335
	Roy's Largest Root	.570	.019	.335
Visualization * DataAttributeTypes	Pillai's Trace	.002	.858	60.234
	Wilks' Lambda	.002	.858	60.234
	Hotelling's Trace	.002	.858	60.234
	Roy's Largest Root	.002	.858	60.234
Visualization * Dataset	Pillai's Trace	.635	.157	2.607
	Wilks' Lambda	.635	.157	2.607
	Hotelling's Trace	.635	.157	2.607
	Roy's Largest Root	.635	.157	2.607
DataAttributeTypes * Dataset	Pillai's Trace	.031	.353	8.717
	Wilks' Lambda	.031	.353	8.717
	Hotelling's Trace	.031	.353	8.717
	Roy's Largest Root	.031	.353	8.717
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.121	.638	17.606
	Wilks' Lambda	.121	.638	17.606
	Hotelling's Trace	.121	.638	17.606
	Roy's Largest Root	.121	.638	17.606

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	.997
	Wilks' Lambda	.997
	Hotelling's Trace	.997
	Roy's Largest Root	.997
DataAttributeTypes	Pillai's Trace	.939
	Wilks' Lambda	.939
	Hotelling's Trace	.939
	Roy's Largest Root	.939
Dataset	Pillai's Trace	.085
	Wilks' Lambda	.085
	Hotelling's Trace	.085
	Roy's Largest Root	.085
Visualization * DataAttributeTypes	Pillai's Trace	.987
	Wilks' Lambda	.987
	Hotelling's Trace	.987
	Roy's Largest Root	.987
Visualization * Dataset	Pillai's Trace	.165
	Wilks' Lambda	.165
	Hotelling's Trace	.165
	Roy's Largest Root	.165
DataAttributeTypes * Dataset	Pillai's Trace	.668
	Wilks' Lambda	.668
	Hotelling's Trace	.668
	Roy's Largest Root	.668
Visualization * DataAttributeTypes * Dataset	Pillai's Trace	.545
	Wilks' Lambda	.545
	Hotelling's Trace	.545
	Roy's Largest Root	.545

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	.441	12.623	9	.183	.729
DataAttributeTypes	.874	2.159	2	.340	.888
Dataset	1.000	.000	0	.	1.000
Visualization * DataAttributeTypes	.005	74.586	35	.000	.579
Visualization * Dataset	.254	21.110	9	.013	.653
DataAttributeTypes * Dataset	.801	3.548	2	.170	.834
Visualization * DataAttributeTypes * Dataset	.001	98.703	35	.000	.493

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	.896	.250
DataAttributeTypes	.984	.500
Dataset	1.000	1.000
Visualization * DataAttributeTypes	.823	.125
Visualization * Dataset	.783	.250
DataAttributeTypes * Dataset	.914	.500
Visualization * DataAttributeTypes * Dataset	.661	.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	20740.741	4	5185.185	7.791
	Greenhouse-Geisser	20740.741	2.915	7114.041	7.791
	Huynh-Feldt	20740.741	3.584	5787.105	7.791
	Lower-bound	20740.741	1.000	20740.741	7.791
Error(Visualization)	Sphericity Assumed	45259.259	68	665.577	
	Greenhouse-Geisser	45259.259	49.563	913.168	
	Huynh-Feldt	45259.259	60.927	742.841	
	Lower-bound	45259.259	17.000	2662.309	
DataAttributeTypes	Sphericity Assumed	6037.037	2	3018.519	6.171
	Greenhouse-Geisser	6037.037	1.776	3399.620	6.171
	Huynh-Feldt	6037.037	1.968	3067.280	6.171
	Lower-bound	6037.037	1.000	6037.037	6.171
Error(DataAttributeTypes)	Sphericity Assumed	16629.630	34	489.107	
	Greenhouse-Geisser	16629.630	30.189	550.859	
	Huynh-Feldt	16629.630	33.459	497.008	
	Lower-bound	16629.630	17.000	978.214	
Dataset	Sphericity Assumed	296.296	1	296.296	.335
	Greenhouse-Geisser	296.296	1.000	296.296	.335
	Huynh-Feldt	296.296	1.000	296.296	.335
	Lower-bound	296.296	1.000	296.296	.335
Error(Dataset)	Sphericity Assumed	15037.037	17	884.532	
	Greenhouse-Geisser	15037.037	17.000	884.532	
	Huynh-Feldt	15037.037	17.000	884.532	
	Lower-bound	15037.037	17.000	884.532	
Visualization * DataAttributeTypes	Sphericity Assumed	10814.815	8	1351.852	1.973
	Greenhouse-Geisser	10814.815	4.636	2332.919	1.973

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.314	31.162
	Greenhouse-Geisser	.000	.314	22.713
	Huynh-Feldt	.000	.314	27.921
	Lower-bound	.013	.314	7.791
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes	Sphericity Assumed	.005	.266	12.343
	Greenhouse-Geisser	.007	.266	10.959
	Huynh-Feldt	.005	.266	12.147
	Lower-bound	.024	.266	6.171
Error(DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Dataset	Sphericity Assumed	.570	.019	.335
	Greenhouse-Geisser	.570	.019	.335
	Huynh-Feldt	.570	.019	.335
	Lower-bound	.570	.019	.335
Error(Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes	Sphericity Assumed	.054	.104	15.784
	Greenhouse-Geisser	.097	.104	9.146

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	.996
	Greenhouse-Geisser	.981
	Huynh-Feldt	.993
	Lower-bound	.749
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes	Sphericity Assumed	.862
	Greenhouse-Geisser	.828
	Huynh-Feldt	.858
	Lower-bound	.649
Error(DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Dataset	Sphericity Assumed	.085
	Greenhouse-Geisser	.085
	Huynh-Feldt	.085
	Lower-bound	.085
Error(Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes	Sphericity Assumed	.797
	Greenhouse-Geisser	.612

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	10814.815	6.587	1641.842	1.973
	Lower-bound	10814.815	1.000	10814.815	1.973
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	93185.185	136	685.185	
	Greenhouse-Geisser	93185.185	78.808	1182.438	
	Huynh-Feldt	93185.185	111.979	832.166	
	Lower-bound	93185.185	17.000	5481.481	
Visualization * Dataset	Sphericity Assumed	1925.926	4	481.481	.396
	Greenhouse-Geisser	1925.926	2.613	736.984	.396
	Huynh-Feldt	1925.926	3.131	615.202	.396
	Lower-bound	1925.926	1.000	1925.926	.396
Error(Visualization*Dataset)	Sphericity Assumed	82740.741	68	1216.776	
	Greenhouse-Geisser	82740.741	44.425	1862.468	
	Huynh-Feldt	82740.741	53.220	1554.707	
	Lower-bound	82740.741	17.000	4867.102	
DataAttributeTypes * Dataset	Sphericity Assumed	4925.926	2	2462.963	3.253
	Greenhouse-Geisser	4925.926	1.668	2952.782	3.253
	Huynh-Feldt	4925.926	1.828	2694.543	3.253
	Lower-bound	4925.926	1.000	4925.926	3.253
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	25740.741	34	757.081	
	Greenhouse-Geisser	25740.741	28.360	907.644	
	Huynh-Feldt	25740.741	31.078	828.265	
	Lower-bound	25740.741	17.000	1514.161	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	11185.185	8	1398.148	1.937
	Greenhouse-Geisser	11185.185	3.945	2835.579	1.937
	Huynh-Feldt	11185.185	5.285	2116.258	1.937
	Lower-bound	11185.185	1.000	11185.185	1.937
Error (Visualization*DataAttributeTypes*Dataset)	Sphericity Assumed	98148.148	136	721.678	
	Greenhouse-Geisser	98148.148	67.058	1463.631	
	Huynh-Feldt	98148.148	89.851	1092.342	
	Lower-bound	98148.148	17.000	5773.420	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.069	.104	12.996
	Lower-bound	.178	.104	1.973
Error (Visualization*DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Dataset	Sphericity Assumed	.811	.023	1.583
	Greenhouse-Geisser	.730	.023	1.034
	Huynh-Feldt	.765	.023	1.239
	Lower-bound	.538	.023	.396
Error(Visualization*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes * Dataset	Sphericity Assumed	.051	.161	6.506
	Greenhouse-Geisser	.061	.161	5.427
	Huynh-Feldt	.056	.161	5.947
	Lower-bound	.089	.161	3.253
Error (DataAttributeTypes*Dataset)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.059	.102	15.499
	Greenhouse-Geisser	.115	.102	7.642
	Huynh-Feldt	.092	.102	10.240
	Lower-bound	.182	.102	1.937
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	.732
	Lower-bound	.264
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Dataset	Sphericity Assumed	.136
	Greenhouse-Geisser	.118
	Huynh-Feldt	.125
	Lower-bound	.091
Error(Visualization*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes * Dataset	Sphericity Assumed	.581
	Greenhouse-Geisser	.526
	Huynh-Feldt	.553
	Lower-bound	.398
Error (DataAttributeTypes*Dataset)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes * Dataset	Sphericity Assumed	.788
	Greenhouse-Geisser	.551
	Huynh-Feldt	.647
	Lower-bound	.260
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			925.926	1
	Quadratic			7645.503	1
	Cubic			3703.704	1
	Order 4			8465.608	1
Error(Visualization)	Linear			8074.074	17
	Quadratic			10687.831	17
	Cubic			10629.630	17
	Order 4			15867.725	17
DataAttributeTypes		Linear		250.000	1
		Quadratic		5787.037	1
Error(DataAttributeTypes)		Linear		11250.000	17
		Quadratic		5379.630	17
Dataset			Linear	296.296	1
Error(Dataset)			Linear	15037.037	17
Visualization * DataAttributeTypes	Linear	Linear		347.222	1
		Quadratic		782.407	1
	Quadratic	Linear		803.571	1
		Quadratic		4050.926	1
	Cubic	Linear		1388.889	1
		Quadratic		74.074	1
	Order 4	Linear		126.984	1
		Quadratic		3240.741	1
Error (Visualization*DataAttributeTypes)	Linear	Linear		11902.778	17
		Quadratic		6967.593	17
	Quadratic	Linear		7232.143	17
		Quadratic		6008.598	17
	Cubic	Linear		12611.111	17
		Quadratic		17592.593	17
	Order 4	Linear		16587.302	17
		Quadratic		14283.069	17
Visualization * Dataset	Linear		Linear	333.333	1
	Quadratic		Linear	238.095	1
	Cubic		Linear	1333.333	1
	Order 4		Linear	21.164	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Visualization	Linear			925.926	1.950
	Quadratic			7645.503	12.161
	Cubic			3703.704	5.923
	Order 4			8465.608	9.070
Error(Visualization)	Linear			474.946	
	Quadratic			628.696	
	Cubic			625.272	
	Order 4			933.396	
DataAttributeTypes		Linear		250.000	.378
		Quadratic		5787.037	18.287
Error(DataAttributeTypes)		Linear		661.765	
		Quadratic		316.449	
Dataset			Linear	296.296	.335
Error(Dataset)			Linear	884.532	
Visualization * DataAttributeTypes	Linear	Linear		347.222	.496
		Quadratic		782.407	1.909
	Quadratic	Linear		803.571	1.889
		Quadratic		4050.926	11.461
	Cubic	Linear		1388.889	1.872
		Quadratic		74.074	.072
	Order 4	Linear		126.984	.130
		Quadratic		3240.741	3.857
Error (Visualization*DataAttributeTypes)	Linear	Linear		700.163	
		Quadratic		409.858	
	Quadratic	Linear		425.420	
		Quadratic		353.447	
	Cubic	Linear		741.830	
		Quadratic		1034.858	
	Order 4	Linear		975.724	
		Quadratic		840.181	
Visualization * Dataset	Linear		Linear	333.333	.500
	Quadratic		Linear	238.095	.386
	Cubic		Linear	1333.333	.613
	Order 4		Linear	21.164	.015

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Sig.	Partial Eta Squared
Visualization	Linear			.181	.103
	Quadratic			.003	.417
	Cubic			.026	.258
	Order 4			.008	.348
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeTypes		Linear		.547	.022
		Quadratic		.001	.518
Error(DataAttributeTypes)		Linear			
		Quadratic			
Dataset			Linear	.570	.019
Error(Dataset)			Linear		
Visualization * DataAttributeTypes	Linear	Linear		.491	.028
		Quadratic		.185	.101
	Quadratic	Linear		.187	.100
		Quadratic		.004	.403
	Cubic	Linear		.189	.099
		Quadratic		.792	.004
	Order 4	Linear		.723	.008
		Quadratic		.066	.185
Error (Visualization*DataAttributeTypes)	Linear	Linear			
		Quadratic			
	Quadratic	Linear			
		Quadratic			
	Cubic	Linear			
		Quadratic			
	Order 4	Linear			
		Quadratic			
Visualization * Dataset	Linear		Linear	.489	.029
	Quadratic		Linear	.542	.022
	Cubic		Linear	.445	.035
	Order 4		Linear	.904	.001

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Noncent. Parameter
Visualization	Linear			1.950
	Quadratic			12.161
	Cubic			5.923
	Order 4			9.070
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.378
		Quadratic		18.287
Error(DataAttributeTypes)		Linear		
		Quadratic		
Dataset			Linear	.335
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.496
		Quadratic		1.909
	Quadratic	Linear		1.889
		Quadratic		11.461
	Cubic	Linear		1.872
		Quadratic		.072
	Order 4	Linear		.130
		Quadratic		3.857
Error (Visualization*DataAttributeTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.500
	Quadratic		Linear	.386
	Cubic		Linear	.613
	Order 4		Linear	.015

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Observed Power[a]
Visualization	Linear			.261
	Quadratic			.907
	Cubic			.631
	Order 4			.810
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.089
		Quadratic		.981
Error(DataAttributeTypes)		Linear		
		Quadratic		
Dataset			Linear	.085
Error(Dataset)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.102
		Quadratic		.257
	Quadratic	Linear		.254
		Quadratic		.890
	Cubic	Linear		.253
		Quadratic		.057
	Order 4	Linear		.063
		Quadratic		.457
Error (Visualization*DataAttributeTypes)	Linear	Linear		
		Quadratic		
	Quadratic	Linear		
		Quadratic		
	Cubic	Linear		
		Quadratic		
	Order 4	Linear		
		Quadratic		
Visualization * Dataset	Linear		Linear	.102
	Quadratic		Linear	.090
	Cubic		Linear	.115
	Order 4		Linear	.052

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Type III Sum of Squares	df
Error(Visualization*Dataset)	Linear		Linear	11333.333	17
	Quadratic		Linear	10476.190	17
	Cubic		Linear	37000.000	17
	Order 4		Linear	23931.217	17
DataAttributeTypes * Dataset		Linear	Linear	27.778	1
		Quadratic	Linear	4898.148	1
Error (DataAttributeTypes*Dataset)		Linear	Linear	15472.222	17
		Quadratic	Linear	10268.519	17
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	13.889	1
		Quadratic	Linear	1041.667	1
	Quadratic	Linear	Linear	486.111	1
		Quadratic	Linear	2410.714	1
	Cubic	Linear	Linear	888.889	1
		Quadratic	Linear	4166.667	1
	Order 4	Linear	Linear	388.889	1
		Quadratic	Linear	1788.360	1
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	6236.111	17
		Quadratic	Linear	8041.667	17
	Quadratic	Linear	Linear	7549.603	17
		Quadratic	Linear	8125.000	17
	Cubic	Linear	Linear	14111.111	17
		Quadratic	Linear	20500.000	17
	Order 4	Linear	Linear	7325.397	17
		Quadratic	Linear	26259.259	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Dataset	Mean Square	F
Error(Visualization*Dataset)	Linear		Linear	666.667	
	Quadratic		Linear	616.246	
	Cubic		Linear	2176.471	
	Order 4		Linear	1407.719	
DataAttributeTypes * Dataset		Linear	Linear	27.778	.031
		Quadratic	Linear	4898.148	8.109
Error (DataAttributeTypes*Dataset)		Linear	Linear	910.131	
		Quadratic	Linear	604.031	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	13.889	.038
		Quadratic	Linear	1041.667	2.202
	Quadratic	Linear	Linear	486.111	1.095
		Quadratic	Linear	2410.714	5.044
	Cubic	Linear	Linear	888.889	1.071
		Quadratic	Linear	4166.667	3.455
	Order 4	Linear	Linear	388.889	.902
		Quadratic	Linear	1788.360	1.158
Error (Visualization*DataAttributeTypes*Dataset)	Linear	Linear	Linear	366.830	
		Quadratic	Linear	473.039	
	Quadratic	Linear	Linear	444.094	
		Quadratic	Linear	477.941	
	Cubic	Linear	Linear	830.065	
		Quadratic	Linear	1205.882	
	Order 4	Linear	Linear	430.906	
		Quadratic	Linear	1544.662	

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	.863	.002
		Quadratic	Linear	.011	.323
Error (DataAttributeTypes*Dataset)		Linear	Linear		
		Quadratic	Linear		
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.848	.002
		Quadratic	Linear	.156	.115
	Quadratic	Linear	Linear	.310	.060
		Quadratic	Linear	.038	.229
	Cubic	Linear	Linear	.315	.059
		Quadratic	Linear	.080	.169
	Order 4	Linear	Linear	.355	.050
		Quadratic	Linear	.297	.064
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	.031
		Quadratic	Linear	8.109
Error (DataAttributeTypes*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.038
		Quadratic	Linear	2.202
	Quadratic	Linear	Linear	1.095
		Quadratic	Linear	5.044
	Cubic	Linear	Linear	1.071
		Quadratic	Linear	3.455
	Order 4	Linear	Linear	.902
		Quadratic	Linear	1.158
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	.053
		Quadratic	Linear	.765
Error (DataAttributeTypes*Dataset)		Linear	Linear	
		Quadratic	Linear	
Visualization * DataAttributeTypes * Dataset	Linear	Linear	Linear	.054
		Quadratic	Linear	.288
	Quadratic	Linear	Linear	.167
		Quadratic	Linear	.563
	Cubic	Linear	Linear	.165
		Quadratic	Linear	.418
	Order 4	Linear	Linear	.146
		Quadratic	Linear	.174
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	4446296.296	1	4446296.296	3593.046	.000	.995
Error	21037.037	17	1237.473			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	3593.046	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
90.741	1.514	87.547	93.935

2. Visualization

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
Visualization	Mean	Std. Error	Lower Bound	Upper Bound
1	96.296	1.681	92.751	99.842
2	79.630	2.541	74.269	84.990
3	92.593	3.079	86.096	99.089
4	88.889	3.565	81.368	96.410
5	96.296	2.154	91.752	100.841

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	16.667*	3.013	.000	6.958
	3	3.704	3.704	1.000	-8.231
	4	7.407	3.621	.566	-4.261
	5	-7.105E-15	2.334	1.000	-7.521
2	1	-16.667*	3.013	.000	-26.376
	3	-12.963*	3.704	.027	-24.898
	4	-9.259	3.864	.283	-21.710
	5	-16.667*	2.695	.000	-25.351
3	1	-3.704	3.704	1.000	-15.639
	2	12.963*	3.704	.027	1.028
	4	3.704	4.774	1.000	-11.682
	5	-3.704	3.941	1.000	-16.404
4	1	-7.407	3.621	.566	-19.076
	2	9.259	3.864	.283	-3.191
	3	-3.704	4.774	1.000	-19.089
	5	-7.407	2.769	.160	-16.329
5	1	7.105E-15	2.334	1.000	-7.521
	2	16.667*	2.695	.000	7.983
	3	3.704	3.941	1.000	-8.997
	4	7.407	2.769	.160	-1.515

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	26.376
	3	15.639
	4	19.076
	5	7.521
2	1	-6.958
	3	-1.028
	4	3.191
	5	-7.983
3	1	8.231
	2	24.898
	4	19.089
	5	8.997
4	1	4.261
	2	21.710
	3	11.682
	5	1.515
5	1	7.521
	2	25.351
	3	16.404
	4	16.329

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	.750	10.483[a]	4.000	14.000	.000	.750
Wilks' lambda	.250	10.483[a]	4.000	14.000	.000	.750
Hotelling's trace	2.995	10.483[a]	4.000	14.000	.000	.750
Roy's largest root	2.995	10.483[a]	4.000	14.000	.000	.750

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	41.934	.997
Wilks' lambda	41.934	.997
Hotelling's trace	41.934	.997
Roy's largest root	41.934	.997

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

DataAttributeTypes	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	93.889	1.645	90.419	97.359
2	86.111	2.003	81.885	90.337
3	92.222	2.365	87.233	97.211

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
1	2	7.778*	2.070	.005	2.282
	3	1.667	2.712	1.000	-5.533
2	1	-7.778*	2.070	.005	-13.273
	3	-6.111*	2.160	.035	-11.846
3	1	-1.667	2.712	1.000	-8.866
	2	6.111*	2.160	.035	.376

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	95% Confidence Interval for [b]... Upper Bound
1	2	13.273
	3	8.866
2	1	-2.282
	3	-.376
3	1	5.533
	2	11.846

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	.527	8.907[a]	2.000	16.000	.003	.527
Wilks' lambda	.473	8.907[a]	2.000	16.000	.003	.527
Hotelling's trace	1.113	8.907[a]	2.000	16.000	.003	.527
Roy's largest root	1.113	8.907[a]	2.000	16.000	.003	.527

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	17.815	.939
Wilks' lambda	17.815	.939
Hotelling's trace	17.815	.939
Roy's largest root	17.815	.939

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

a. Exact statistic

b. Computed using alpha = .05

4. Visualization * DataAttributeTypes

Measure: MEASURE_1

Visualization	DataAttributeTypes	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	97.222	2.778	91.362	103.083
	2	100.000	.000	100.000	100.000
	3	91.667	4.519	82.132	101.202
2	1	80.556	5.912	68.083	93.028
	2	69.444	5.912	56.972	81.917
	3	88.889	5.042	78.252	99.526
3	1	94.444	3.811	86.404	102.485
	2	88.889	5.042	78.252	99.526
	3	94.444	5.556	82.723	106.166
4	1	97.222	2.778	91.362	103.083
	2	77.778	6.026	65.064	90.491
	3	91.667	4.519	82.132	101.202
5	1	100.000	.000	100.000	100.000
	2	94.444	3.811	86.404	102.485
	3	94.444	3.811	86.404	102.485