```
 GET
  FILE='C:\Users\Bahador\Desktop\SPSS-Analysis\Retrieve\Retrieve_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_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=visualizations 5 Polynomial Datasets 2 Polynomial Attributes 3 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(visualizations) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Datasets) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Attributes) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(visualizations*Datasets)
  /EMMEANS=TABLES(visualizations*Attributes)
  /EMMEANS=TABLES(Datasets*Attributes)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=visualizations Datasets Attributes visualizations*Datasets visualizations*Attributes
    Datasets*Attributes visualizations*Datasets*Attributes.
```

General Linear Model

Notes

Output Created		24-MAR-2017 14:56:16
Comments		
Input	Data	C:\Users\Bahador\Desktop\SPSS-Analysis\Retrieve\Retrieve_Time.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	18
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Notes

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

Notes

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

[DataSet1] C:\Users\Bahador\Desktop\SPSS-Analysis\Retrieve\Retrieve_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

visualizations	Datasets	Attributes	Dependent Variable
1	1	1	Bar_Nom_Num_Car
		2	Bar_Nom_Num_Movie
		3	Bar_Num_Num_Car
	2	1	Bar_Num_Num_Movie
		2	Bar_Ord_Num_Car
		3	Bar_Ord_Num_Movie
2	1	1	Line_Nom_Num_Car
		2	Line_Nom_Num_Movie
		3	Line_Num_Num_Car
	2	1	Line_Num_Num_Movie
		2	Line_Ord_Num_Car
		3	Line_Ord_Num_Movie

Within-Subjects Factors

Measure: MEASURE_1

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

Descriptive Statistics

	Mean	Std. Deviation	N
Bar_Nom_Num_Car	1.3323	.19638	18
Bar_Nom_Num_Movie	1.2419	.28791	18
Bar_Num_Num_Car	1.2845	.25725	18
Bar_Num_Num_Movie	1.1287	.23389	18
Bar_Ord_Num_Car	1.1594	.26351	18
Bar_Ord_Num_Movie	1.5959	.21962	18
Line_Nom_Num_Car	1.2470	.23311	18
Line_Nom_Num_Movie	1.2566	.22925	18
Line_Num_Num_Car	1.2337	.17174	18
Line_Num_Num_Movie	1.2240	.25404	18
Line_Ord_Num_Car	1.1562	.25734	18
Line_Ord_Num_Movie	1.1371	.19336	18
Pie_Nom_Num_Car	1.1667	.20424	18
Pie_Nom_Num_Movie	1.1711	.19431	18
Pie_Num_Num_Car	1.2651	.17627	18
Pie_Num_Num_Movie	1.2934	.22841	18
Pie_Ord_Num_Car	1.2945	.23050	18
Pie_Ord_Num_Movie	1.2431	.20713	18
Scatter_Nom_Num_Car	1.1553	.16457	18
Scatter_Nom_Num_Movie	1.1471	.22806	18
Scatter_Num_Num_Car	1.2574	.21861	18
Scatter_Num_Num_Movie	1.2054	.25800	18
Scatter_Ord_Num_Car	1.1598	.27603	18
Scatter_Ord_Num_Movie	1.1649	.21688	18
Table_Nom_Num_Car	1.1986	.18700	18
Table_Nom_Num_Movie	1.2889	.27895	18
Table_Num_Num_Car	1.3938	.19728	18
Table_Num_Num_Movie	1.3273	.19108	18
Table_Ord_Num_Car	1.2566	.34764	18
Table_Ord_Num_Movie	1.1551	.24392	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
visualizations	Pillai's Trace	.446	2.815[b]	4.000	14.000
	Wilks' Lambda	.554	2.815[b]	4.000	14.000
	Hotelling's Trace	.804	2.815[b]	4.000	14.000
	Roy's Largest Root	.804	2.815[b]	4.000	14.000
Datasets	Pillai's Trace	.020	.354[b]	1.000	17.000
	Wilks' Lambda	.980	.354[b]	1.000	17.000
	Hotelling's Trace	.021	.354[b]	1.000	17.000
	Roy's Largest Root	.021	.354[b]	1.000	17.000
Attributes	Pillai's Trace	.292	3.292[b]	2.000	16.000
	Wilks' Lambda	.708	3.292[b]	2.000	16.000
	Hotelling's Trace	.412	3.292[b]	2.000	16.000
	Roy's Largest Root	.412	3.292[b]	2.000	16.000
visualizations * Datasets	Pillai's Trace	.626	5.867[b]	4.000	14.000
	Wilks' Lambda	.374	5.867[b]	4.000	14.000
	Hotelling's Trace	1.676	5.867[b]	4.000	14.000
	Roy's Largest Root	1.676	5.867[b]	4.000	14.000
visualizations * Attributes	Pillai's Trace	.773	4.259[b]	8.000	10.000
	Wilks' Lambda	.227	4.259[b]	8.000	10.000
	Hotelling's Trace	3.407	4.259[b]	8.000	10.000
	Roy's Largest Root	3.407	4.259[b]	8.000	10.000
Datasets * Attributes	Pillai's Trace	.065	.558[b]	2.000	16.000
	Wilks' Lambda	.935	.558[b]	2.000	16.000
	Hotelling's Trace	.070	.558[b]	2.000	16.000
	Roy's Largest Root	.070	.558[b]	2.000	16.000
visualizations * Datasets * Attributes	Pillai's Trace	.908	12.309[b]	8.000	10.000
	Wilks' Lambda	.092	12.309[b]	8.000	10.000
	Hotelling's Trace	9.848	12.309[b]	8.000	10.000
	Roy's Largest Root	9.848	12.309[b]	8.000	10.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
visualizations	Pillai's Trace	.066	.446	11.259
	Wilks' Lambda	.066	.446	11.259
	Hotelling's Trace	.066	.446	11.259
	Roy's Largest Root	.066	.446	11.259
Datasets	Pillai's Trace	.560	.020	.354
	Wilks' Lambda	.560	.020	.354
	Hotelling's Trace	.560	.020	.354
	Roy's Largest Root	.560	.020	.354
Attributes	Pillai's Trace	.063	.292	6.585
	Wilks' Lambda	.063	.292	6.585
	Hotelling's Trace	.063	.292	6.585
	Roy's Largest Root	.063	.292	6.585
visualizations * Datasets	Pillai's Trace	.005	.626	23.466
	Wilks' Lambda	.005	.626	23.466
	Hotelling's Trace	.005	.626	23.466
	Roy's Largest Root	.005	.626	23.466
visualizations * Attributes	Pillai's Trace	.018	.773	34.072
	Wilks' Lambda	.018	.773	34.072
	Hotelling's Trace	.018	.773	34.072
	Roy's Largest Root	.018	.773	34.072
Datasets * Attributes	Pillai's Trace	.583	.065	1.116
	Wilks' Lambda	.583	.065	1.116
	Hotelling's Trace	.583	.065	1.116
	Roy's Largest Root	.583	.065	1.116
visualizations * Datasets * Attributes	Pillai's Trace	.000	.908	98.475
	Wilks' Lambda	.000	.908	98.475
	Hotelling's Trace	.000	.908	98.475
	Roy's Largest Root	.000	.908	98.475

Multivariate Tests[a]

Effect		Observed Power[c]
visualizations	Pillai's Trace	.612
	Wilks' Lambda	.612
	Hotelling's Trace	.612
	Roy's Largest Root	.612
Datasets	Pillai's Trace	.087
	Wilks' Lambda	.087
	Hotelling's Trace	.087
	Roy's Largest Root	.087
Attributes	Pillai's Trace	.541
	Wilks' Lambda	.541
	Hotelling's Trace	.541
	Roy's Largest Root	.541
visualizations * Datasets	Pillai's Trace	.924
	Wilks' Lambda	.924
	Hotelling's Trace	.924
	Roy's Largest Root	.924
visualizations * Attributes	Pillai's Trace	.861
	Wilks' Lambda	.861
	Hotelling's Trace	.861
	Roy's Largest Root	.861
Datasets * Attributes	Pillai's Trace	.126
	Wilks' Lambda	.126
	Hotelling's Trace	.126
	Roy's Largest Root	.126
visualizations * Datasets * Attributes	Pillai's Trace	1.000
	Wilks' Lambda	1.000
	Hotelling's Trace	1.000
	Roy's Largest Root	1.000

a. Design: Intercept
Within Subjects Design: visualizations + Datasets + Attributes + visualizations * Datasets + visualizations * Attributes + Datasets * Attributes + visualizations * Datasets * Attributes

b. Exact statistic

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
visualizations	.245	21.669	9	.010	.643
Datasets	1.000	.000	0	.	1.000
Attributes	.964	.588	2	.745	.965
visualizations * Datasets	.273	19.992	9	.019	.651
visualizations * Attributes	.062	39.254	35	.313	.664
Datasets * Attributes	.724	5.164	2	.076	.784
visualizations * Datasets * Attributes	.075	36.545	35	.427	.635

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
visualizations	.768	.250
Datasets	1.000	1.000
Attributes	1.000	.500
visualizations * Datasets	.779	.250
visualizations * Attributes	1.000	.125
Datasets * Attributes	.849	.500
visualizations * Datasets * Attributes	.939	.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: visualizations + Datasets + Attributes + visualizations * Datasets + visualizations * Attributes + Datasets * Attributes + visualizations * Datasets * Attributes

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
visualizations	Sphericity Assumed	.841	4	.210	4.341
	Greenhouse-Geisser	.841	2.574	.327	4.341
	Huynh-Feldt	.841	3.073	.274	4.341
	Lower-bound	.841	1.000	.841	4.341
Error(visualizations)	Sphericity Assumed	3.293	68	.048	
	Greenhouse-Geisser	3.293	43.753	.075	
	Huynh-Feldt	3.293	52.234	.063	
	Lower-bound	3.293	17.000	.194	
Datasets	Sphericity Assumed	.011	1	.011	.354
	Greenhouse-Geisser	.011	1.000	.011	.354
	Huynh-Feldt	.011	1.000	.011	.354
	Lower-bound	.011	1.000	.011	.354
Error(Datasets)	Sphericity Assumed	.551	17	.032	
	Greenhouse-Geisser	.551	17.000	.032	
	Huynh-Feldt	.551	17.000	.032	
	Lower-bound	.551	17.000	.032	
Attributes	Sphericity Assumed	.351	2	.175	3.501
	Greenhouse-Geisser	.351	1.930	.182	3.501
	Huynh-Feldt	.351	2.000	.175	3.501
	Lower-bound	.351	1.000	.351	3.501
Error(Attributes)	Sphericity Assumed	1.702	34	.050	
	Greenhouse-Geisser	1.702	32.816	.052	
	Huynh-Feldt	1.702	34.000	.050	
	Lower-bound	1.702	17.000	.100	
visualizations * Datasets	Sphericity Assumed	.355	4	.089	2.329
	Greenhouse-Geisser	.355	2.603	.136	2.329
	Huynh-Feldt	.355	3.116	.114	2.329
	Lower-bound	.355	1.000	.355	2.329
Error (visualizations*Datasets)	Sphericity Assumed	2.591	68	.038	
	Greenhouse-Geisser	2.591	44.251	.059	
	Huynh-Feldt	2.591	52.964	.049	
	Lower-bound	2.591	17.000	.152	
visualizations * Attributes	Sphericity Assumed	.997	8	.125	3.943
	Greenhouse-Geisser	.997	5.315	.188	3.943

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
visualizations	Sphericity Assumed	.003	.203	17.365
	Greenhouse-Geisser	.012	.203	11.173
	Huynh-Feldt	.008	.203	13.339
	Lower-bound	.053	.203	4.341
Error(visualizations)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Datasets	Sphericity Assumed	.560	.020	.354
	Greenhouse-Geisser	.560	.020	.354
	Huynh-Feldt	.560	.020	.354
	Lower-bound	.560	.020	.354
Error(Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Attributes	Sphericity Assumed	.041	.171	7.001
	Greenhouse-Geisser	.043	.171	6.757
	Huynh-Feldt	.041	.171	7.001
	Lower-bound	.079	.171	3.501
Error(Attributes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
visualizations * Datasets	Sphericity Assumed	.065	.120	9.315
	Greenhouse-Geisser	.095	.120	6.062
	Huynh-Feldt	.083	.120	7.255
	Lower-bound	.145	.120	2.329
Error (visualizations*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
visualizations * Attributes	Sphericity Assumed	.000	.188	31.543
	Greenhouse-Geisser	.002	.188	20.956

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
visualizations	Sphericity Assumed	.915
	Greenhouse-Geisser	.796
	Huynh-Feldt	.849
	Lower-bound	.502
Error(visualizations)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Datasets	Sphericity Assumed	.087
	Greenhouse-Geisser	.087
	Huynh-Feldt	.087
	Lower-bound	.087
Error(Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Attributes	Sphericity Assumed	.614
	Greenhouse-Geisser	.603
	Huynh-Feldt	.614
	Lower-bound	.423
Error(Attributes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
visualizations * Datasets	Sphericity Assumed	.646
	Greenhouse-Geisser	.510
	Huynh-Feldt	.564
	Lower-bound	.302
Error (visualizations*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
visualizations * Attributes	Sphericity Assumed	.989
	Greenhouse-Geisser	.945

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	.997	8.000	.125	3.943
	Lower-bound	.997	1.000	.997	3.943
Error (visualizations*Attributes)	Sphericity Assumed	4.300	136	.032	
	Greenhouse-Geisser	4.300	90.351	.048	
	Huynh-Feldt	4.300	136.000	.032	
	Lower-bound	4.300	17.000	.253	
Datasets * Attributes	Sphericity Assumed	.045	2	.023	.461
	Greenhouse-Geisser	.045	1.568	.029	.461
	Huynh-Feldt	.045	1.699	.027	.461
	Lower-bound	.045	1.000	.045	.461
Error(Datasets*Attributes)	Sphericity Assumed	1.674	34	.049	
	Greenhouse-Geisser	1.674	26.649	.063	
	Huynh-Feldt	1.674	28.879	.058	
	Lower-bound	1.674	17.000	.098	
visualizations * Datasets * Attributes	Sphericity Assumed	2.133	8	.267	6.729
	Greenhouse-Geisser	2.133	5.083	.420	6.729
	Huynh-Feldt	2.133	7.509	.284	6.729
	Lower-bound	2.133	1.000	2.133	6.729
Error (visualizations*Datasets*Attributes)	Sphericity Assumed	5.389	136	.040	
	Greenhouse-Geisser	5.389	86.408	.062	
	Huynh-Feldt	5.389	127.660	.042	
	Lower-bound	5.389	17.000	.317	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.000	.188	31.543
	Lower-bound	.063	.188	3.943
Error (visualizations*Attributes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Datasets * Attributes	Sphericity Assumed	.635	.026	.922
	Greenhouse-Geisser	.589	.026	.723
	Huynh-Feldt	.604	.026	.783
	Lower-bound	.506	.026	.461
Error(Datasets*Attributes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
visualizations * Datasets * Attributes	Sphericity Assumed	.000	.284	53.830
	Greenhouse-Geisser	.000	.284	34.201
	Huynh-Feldt	.000	.284	50.529
	Lower-bound	.019	.284	6.729
Error (visualizations*Datasets*Attributes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
	Huynh-Feldt	.989
	Lower-bound	.466
Error (visualizations*Attributes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Datasets * Attributes	Sphericity Assumed	.119
	Greenhouse-Geisser	.111
	Huynh-Feldt	.113
	Lower-bound	.098
Error(Datasets*Attributes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
visualizations * Datasets * Attributes	Sphericity Assumed	1.000
	Greenhouse-Geisser	.997
	Huynh-Feldt	1.000
	Lower-bound	.686
Error (visualizations*Datasets*Attributes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	visualizations	Datasets	Attributes	Type III Sum of Squares	df
visualizations	Linear			.050	1
	Quadratic			.491	1
	Cubic			.013	1
	Order 4			.287	1
Error(visualizations)	Linear			.722	17
	Quadratic			1.204	17
	Cubic			.569	17
	Order 4			.797	17
Datasets		Linear		.011	1
Error(Datasets)		Linear		.551	17
Attributes			Linear	.184	1
			Quadratic	.167	1
Error(Attributes)			Linear	.694	17
			Quadratic	1.008	17
visualizations * Datasets	Linear	Linear		.006	1
	Quadratic	Linear		.042	1
	Cubic	Linear		.090	1
	Order 4	Linear		.217	1
Error (visualizations*Datasets)	Linear	Linear		1.317	17
	Quadratic	Linear		.516	17
	Cubic	Linear		.286	17
	Order 4	Linear		.472	17
visualizations * Attributes	Linear		Linear	.179	1
			Quadratic	.137	1
	Quadratic		Linear	.220	1
			Quadratic	.066	1
	Cubic		Linear	.233	1
			Quadratic	.111	1
	Order 4		Linear	.050	1
			Quadratic	2.272E-7	1
Error (visualizations*Attributes)	Linear		Linear	.476	17
			Quadratic	.590	17
	Quadratic		Linear	.587	17
			Quadratic	.472	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	visualizations	Datasets	Attributes	Mean Square	F
visualizations	Linear			.050	1.183
	Quadratic			.491	6.931
	Cubic			.013	.384
	Order 4			.287	6.118
Error(visualizations)	Linear			.042	
	Quadratic			.071	
	Cubic			.033	
	Order 4			.047	
Datasets		Linear		.011	.354
Error(Datasets)		Linear		.032	
Attributes			Linear	.184	4.504
			Quadratic	.167	2.809
Error(Attributes)			Linear	.041	
			Quadratic	.059	
visualizations * Datasets	Linear	Linear		.006	.081
	Quadratic	Linear		.042	1.368
	Cubic	Linear		.090	5.347
	Order 4	Linear		.217	7.823
Error (visualizations*Datasets)	Linear	Linear		.077	
	Quadratic	Linear		.030	
	Cubic	Linear		.017	
	Order 4	Linear		.028	
visualizations * Attributes	Linear		Linear	.179	6.399
			Quadratic	.137	3.955
	Quadratic		Linear	.220	6.372
			Quadratic	.066	2.377
	Cubic		Linear	.233	8.395
			Quadratic	.111	3.485
	Order 4		Linear	.050	1.094
			Quadratic	2.272E-7	.000
Error (visualizations*Attributes)	Linear		Linear	.028	
			Quadratic	.035	
	Quadratic		Linear	.035	
			Quadratic	.028	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	visualizations	Datasets	Attributes	Sig.	Partial Eta Squared
visualizations	Linear			.292	.065
	Quadratic			.017	.290
	Cubic			.544	.022
	Order 4			.024	.265
Error(visualizations)	Linear				
	Quadratic				
	Cubic				
	Order 4				
Datasets		Linear		.560	.020
Error(Datasets)		Linear			
Attributes			Linear	.049	.209
			Quadratic	.112	.142
Error(Attributes)			Linear		
			Quadratic		
visualizations * Datasets	Linear	Linear		.779	.005
	Quadratic	Linear		.258	.074
	Cubic	Linear		.034	.239
	Order 4	Linear		.012	.315
Error (visualizations*Datasets)	Linear	Linear			
	Quadratic	Linear			
	Cubic	Linear			
	Order 4	Linear			
visualizations * Attributes	Linear		Linear	.022	.273
			Quadratic	.063	.189
	Quadratic		Linear	.022	.273
			Quadratic	.142	.123
	Cubic		Linear	.010	.331
			Quadratic	.079	.170
	Order 4		Linear	.310	.060
			Quadratic	.997	.000
Error (visualizations*Attributes)	Linear		Linear		
			Quadratic		
	Quadratic		Linear		
			Quadratic		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	visualizations	Datasets	Attributes	Noncent. Parameter	Observed Power[a]
visualizations	Linear			1.183	.177
	Quadratic			6.931	.699
	Cubic			.384	.090
	Order 4			6.118	.645
Error(visualizations)	Linear				
	Quadratic				
	Cubic				
	Order 4				
Datasets		Linear		.354	.087
Error(Datasets)		Linear			
Attributes			Linear	4.504	.517
			Quadratic	2.809	.353
Error(Attributes)			Linear		
			Quadratic		
visualizations * Datasets	Linear	Linear		.081	.058
	Quadratic	Linear		1.368	.197
	Cubic	Linear		5.347	.587
	Order 4	Linear		7.823	.751
Error (visualizations*Datasets)	Linear	Linear			
	Quadratic	Linear			
	Cubic	Linear			
	Order 4	Linear			
visualizations * Attributes	Linear		Linear	6.399	.665
			Quadratic	3.955	.467
	Quadratic		Linear	6.372	.663
			Quadratic	2.377	.307
	Cubic		Linear	8.395	.780
			Quadratic	3.485	.421
	Order 4		Linear	1.094	.167
			Quadratic	.000	.050
Error (visualizations*Attributes)	Linear		Linear		
			Quadratic		
	Quadratic		Linear		
			Quadratic		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	visualizations	Datasets	Attributes	Type III Sum of Squares	df
	Cubic		Linear	.473	17
			Quadratic	.542	17
	Order 4		Linear	.783	17
			Quadratic	.377	17
Datasets * Attributes		Linear	Linear	.042	1
			Quadratic	.003	1
Error(Datasets*Attributes)		Linear	Linear	.673	17
			Quadratic	1.001	17
visualizations * Datasets * Attributes	Linear	Linear	Linear	1.513	1
			Quadratic	.093	1
	Quadratic	Linear	Linear	.210	1
			Quadratic	.056	1
	Cubic	Linear	Linear	.249	1
			Quadratic	6.007E-5	1
	Order 4	Linear	Linear	.001	1
			Quadratic	.010	1
Error (visualizations*Datasets*Attributes)	Linear	Linear	Linear	.522	17
			Quadratic	.645	17
	Quadratic	Linear	Linear	.389	17
			Quadratic	.790	17
	Cubic	Linear	Linear	.883	17
			Quadratic	.999	17
	Order 4	Linear	Linear	.649	17
			Quadratic	.511	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	visualizations	Datasets	Attributes	Mean Square	F
	Cubic		Linear	.028	
			Quadratic	.032	
	Order 4		Linear	.046	
			Quadratic	.022	
Datasets * Attributes		Linear	Linear	.042	1.073
			Quadratic	.003	.049
Error(Datasets*Attributes)		Linear	Linear	.040	
			Quadratic	.059	
visualizations * Datasets * Attributes	Linear	Linear	Linear	1.513	49.272
			Quadratic	.093	2.439
	Quadratic	Linear	Linear	.210	9.194
			Quadratic	.056	1.215
	Cubic	Linear	Linear	.249	4.798
			Quadratic	6.007E-5	.001
	Order 4	Linear	Linear	.001	.025
			Quadratic	.010	.330
Error (visualizations*Datasets*Attributes)	Linear	Linear	Linear	.031	
			Quadratic	.038	
	Quadratic	Linear	Linear	.023	
			Quadratic	.046	
	Cubic	Linear	Linear	.052	
			Quadratic	.059	
	Order 4	Linear	Linear	.038	
			Quadratic	.030	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	visualizations	Datasets	Attributes	Sig.	Partial Eta Squared
	Cubic		Linear		
			Quadratic		
	Order 4		Linear		
			Quadratic		
Datasets * Attributes		Linear	Linear	.315	.059
			Quadratic	.827	.003
Error(Datasets*Attributes)		Linear	Linear		
			Quadratic		
visualizations * Datasets * Attributes	Linear	Linear	Linear	.000	.743
			Quadratic	.137	.125
	Quadratic	Linear	Linear	.008	.351
			Quadratic	.286	.067
	Cubic	Linear	Linear	.043	.220
			Quadratic	.975	.000
	Order 4	Linear	Linear	.877	.001
			Quadratic	.573	.019
Error (visualizations*Datasets*Attributes)	Linear	Linear	Linear		
			Quadratic		
	Quadratic	Linear	Linear		
			Quadratic		
	Cubic	Linear	Linear		
			Quadratic		
	Order 4	Linear	Linear		
			Quadratic		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	visualizations	Datasets	Attributes	Noncent. Parameter	Observed Power[a]
	Cubic		Linear		
			Quadratic		
	Order 4		Linear		
			Quadratic		
Datasets * Attributes		Linear	Linear	1.073	.165
			Quadratic	.049	.055
Error(Datasets*Attributes)		Linear	Linear		
			Quadratic		
visualizations * Datasets * Attributes	Linear	Linear	Linear	49.272	1.000
			Quadratic	2.439	.314
	Quadratic	Linear	Linear	9.194	.815
			Quadratic	1.215	.180
	Cubic	Linear	Linear	4.798	.542
			Quadratic	.001	.050
	Order 4	Linear	Linear	.025	.053
			Quadratic	.330	.084
Error (visualizations*Datasets*Attributes)	Linear	Linear	Linear		
			Quadratic		
	Quadratic	Linear	Linear		
			Quadratic		
	Cubic	Linear	Linear		
			Quadratic		
	Order 4	Linear	Linear		
			Quadratic		

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	827.699	1	827.699	1793.467	.000	.991
Error	7.846	17	.462			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	1793.467	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
1.238	.029	1.176	1.300

2. visualizations

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
visualizations	Mean	Std. Error	Lower Bound	Upper Bound
1	1.290	.036	1.214	1.367
2	1.209	.040	1.125	1.294
3	1.239	.031	1.174	1.304
4	1.182	.037	1.104	1.259
5	1.270	.029	1.209	1.332

Pairwise Comparisons

Measure: MEASURE_1

(I) visualizations	(J) visualizations	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence [a]... Lower Bound
1	2	.081	.040	.568	-.047
	3	.051	.035	1.000	-.063
	4	.109	.034	.056	-.002
	5	.020	.033	1.000	-.084
2	1	-.081	.040	.568	-.210
	3	-.030	.023	1.000	-.104
	4	.027	.019	1.000	-.033
	5	-.061	.032	.771	-.165
3	1	-.051	.035	1.000	-.165
	2	.030	.023	1.000	-.044
	4	.057	.025	.351	-.023
	5	-.031	.019	1.000	-.094
4	1	-.109	.034	.056	-.219
	2	-.027	.019	1.000	-.088
	3	-.057	.025	.351	-.138
	5	-.088	.031	.113	-.189
5	1	-.020	.033	1.000	-.125
	2	.061	.032	.771	-.043
	3	.031	.019	1.000	-.032
	4	.088	.031	.113	-.012

Pairwise Comparisons

Measure: MEASURE_1

(I) visualizations	(J) visualizations	95% Confidence Interval for [a]... Upper Bound
1	2	.210
	3	.165
	4	.219
	5	.125
2	1	.047
	3	.044
	4	.088
	5	.043
3	1	.063
	2	.104
	4	.138
	5	.032
4	1	.002
	2	.033
	3	.023
	5	.012
5	1	.084
	2	.165
	3	.094
	4	.189

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	.446	2.815[a]	4.000	14.000	.066	.446
Wilks' lambda	.554	2.815[a]	4.000	14.000	.066	.446
Hotelling's trace	.804	2.815[a]	4.000	14.000	.066	.446
Roy's largest root	.804	2.815[a]	4.000	14.000	.066	.446

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	11.259	.612
Wilks' lambda	11.259	.612
Hotelling's trace	11.259	.612
Roy's largest root	11.259	.612

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

a. Exact statistic

b. Computed using alpha = .05

3. Datasets

Estimates

Measure: MEASURE_1

			95% Confidence Interval	
Datasets	Mean	Std. Error	Lower Bound	Upper Bound
1	1.243	.026	1.187	1.298
2	1.233	.034	1.162	1.305

Pairwise Comparisons

Measure: MEASURE_1

(I) Datasets	(J) Datasets	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.009	.015	.560	-.023	.042
2	1	-.009	.015	.560	-.042	.023

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	.020	.354[a]	1.000	17.000	.560	.020
Wilks' lambda	.980	.354[a]	1.000	17.000	.560	.020
Hotelling's trace	.021	.354[a]	1.000	17.000	.560	.020
Roy's largest root	.021	.354[a]	1.000	17.000	.560	.020

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	.354	.087
Wilks' lambda	.354	.087
Hotelling's trace	.354	.087
Roy's largest root	.354	.087

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

a. Exact statistic

b. Computed using alpha = .05

4. Attributes

Estimates

Measure: MEASURE_1

Attributes	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	1.228	.029	1.166	1.290
2	1.213	.038	1.133	1.293
3	1.273	.029	1.213	1.334

Pairwise Comparisons

Measure: MEASURE_1

(I) Attributes	(J) Attributes	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.015	.024	1.000	-.050	.079
	3	-.045	.021	.146	-.102	.011
2	1	-.015	.024	1.000	-.079	.050
	3	-.060	.025	.087	-.126	.007
3	1	.045	.021	.146	-.011	.102
	2	.060	.025	.087	-.007	.126

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	.292	3.292[a]	2.000	16.000	.063	.292
Wilks' lambda	.708	3.292[a]	2.000	16.000	.063	.292
Hotelling's trace	.412	3.292[a]	2.000	16.000	.063	.292
Roy's largest root	.412	3.292[a]	2.000	16.000	.063	.292

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	6.585	.541
Wilks' lambda	6.585	.541
Hotelling's trace	6.585	.541
Roy's largest root	6.585	.541

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

a. Exact statistic

b. Computed using alpha = .05

5. visualizations * Datasets

Measure: MEASURE_1

visualizations	Datasets	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	1.286	.040	1.201	1.372
	2	1.295	.044	1.202	1.387
2	1	1.246	.036	1.170	1.321
	2	1.172	.049	1.070	1.275
3	1	1.201	.025	1.149	1.253
	2	1.277	.042	1.188	1.366
4	1	1.187	.036	1.110	1.263
	2	1.177	.046	1.080	1.273
5	1	1.294	.033	1.224	1.364
	2	1.246	.038	1.166	1.327

6. visualizations * Attributes

Measure: MEASURE_1

visualizations	Attributes	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	1.230	.030	1.166	1.295
	2	1.201	.055	1.085	1.316
	3	1.440	.047	1.342	1.539
2	1	1.236	.051	1.127	1.344
	2	1.206	.049	1.102	1.311
	3	1.185	.036	1.110	1.260
3	1	1.230	.041	1.144	1.316
	2	1.233	.040	1.147	1.318
	3	1.254	.035	1.181	1.328
4	1	1.180	.042	1.092	1.269
	2	1.153	.044	1.061	1.246
	3	1.211	.042	1.123	1.300
5	1	1.263	.034	1.192	1.334
	2	1.273	.055	1.156	1.390
	3	1.274	.037	1.195	1.353

7. Datasets * Attributes

Measure: MEASURE_1

Datasets	Attributes	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	1.220	.030	1.156	1.284
	2	1.221	.038	1.141	1.301
	3	1.287	.027	1.230	1.344
2	1	1.236	.038	1.156	1.315
	2	1.205	.045	1.110	1.301
	3	1.259	.034	1.188	1.330