```
 GET
  FILE='C:\Users\Bahador\Desktop\Analysis\Correlation\Correlation_Time.sav'.
DATASET NAME DataSet2 WINDOW=FRONT.
GLM Bar_Num_Num_Car Bar_Num_Num_MovieBar_Ord_Num_Car Bar_Ord_Num_MovieLine_N
um_Num_Car
    Line_Num_Num_MovieLine_Ord_Num_Car Line_Ord_Num_MoviePie_Num_Num_Car Pie
_Num_Num_Movie
    Pie_Ord_Num_Car Pie_Ord_Num_MovieScatter_Num_Num_CarScatter_Num_Num_Movi
e Scatter_Ord_Num_Car
    Scatter_Ord_Num_MovieTable_Num_Num_Car Table_Num_Num_MovieTable_Ord_Num_
Car Table_Ord_Num_Movie
  /WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 2 Polynomial Dataset
s 2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(Visualization)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(DataAttributeTypes)
  /EMMEANS=TABLES(Visualization*DataAttributeTypes)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Visualization DataAttributeTypesDatasets Visualization*DataAttrib
uteTypes
    Visualization*Datasets DataAttributeTypes*Datasets Visualization*DataAttri
buteTypes*Datasets.
```

General Linear Model

Notes

Output Created		06-SEP-2016 12:50:41
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\Correlation\Correlation_Time.sav
	Active Dataset	DataSet2
	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_Num_Num_Car Bar_Num_Num_Movie Bar_Ord_Num_Car Bar_Ord_Num_Movie Line_Num_Num_Car Line_Num_Num_Movie Line_Ord_Num_Car Line_Ord_Num_Movie Pie_Num_Num_Car Pie_Num_Num_Movie Pie_Ord_Num_Car Pie_Ord_Num_Movie Scatter_Num_Num_Car Scatter_Num_Num_Movie Scatter_Ord_Num_Car Scatter_Ord_Num_Movie Table_Num_Num_Car Table_Num_Num_Movie Table_Ord_Num_Car Table_Ord_Num_Movie /WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 2 Polynomial Datasets 2 Polynomial /METHOD=SSTYPE(3) /EMMEANS=TABLES (Visualization) /EMMEANS=TABLES (OVERALL) /EMMEANS=TABLES (DataAttributeTypes) /EMMEANS=TABLES (Visualization*DataAttributeTypes) /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=Visualization DataAttributeTypes Datasets Visualization*DataAttributeTypes Visualization*Datasets DataAttributeTypes*Datasets Visualization*DataAttributeTypes*Datasets.

Notes

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

[DataSet2] C:\Users\Bahador\Desktop\Analysis\Correlation\Correlation_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	DataAttributeTypes	Datasets	Dependent Variable
1	1	1	Bar_Num_Num_Car
		2	Bar_Num_Num_Movie
	2	1	Bar_Ord_Num_Car
		2	Bar_Ord_Num_Movie
2	1	1	Line_Num_Num_Car
		2	Line_Num_Num_Movie
	2	1	Line_Ord_Num_Car
		2	Line_Ord_Num_Movie
3	1	1	Pie_Num_Num_Car
		2	Pie_Num_Num_Movie
	2	1	Pie_Ord_Num_Car
		2	Pie_Ord_Num_Movie
4	1	1	Scatter_Num_Num_Car
		2	Scatter_Num_Num_Movie

Within-Subjects Factors

Measure: MEASURE_1

Visualization	DataAttributeTypes	Datasets	Dependent Variable
	2	1	Scatter_Ord_Num_Car
		2	Scatter_Ord_Num_Movie
5	1	1	Table_Num_Num_Car
		2	Table_Num_Num_Movie
	2	1	Table_Ord_Num_Car
		2	Table_Ord_Num_Movie

Descriptive Statistics

	Mean	Std. Deviation	N
Bar_Num_Num_Car	9.5000	10.27991	18
Bar_Num_Num_Movie	10.3333	10.63291	18
Bar_Ord_Num_Car	9.3333	8.31016	18
Bar_Ord_Num_Movie	10.0556	8.30643	18
Line_Num_Num_Car	9.8889	9.76723	18
Line_Num_Num_Movie	8.1667	4.81725	18
Line_Ord_Num_Car	6.1667	4.06202	18
Line_Ord_Num_Movie	6.4444	4.16176	18
Pie_Num_Num_Car	27.7222	28.53235	18
Pie_Num_Num_Movie	20.8333	29.48429	18
Pie_Ord_Num_Car	13.9444	12.23530	18
Pie_Ord_Num_Movie	19.1667	19.45508	18
Scatter_Num_Num_Car	11.1111	7.26708	18
Scatter_Num_Num_Movie	12.7778	14.28514	18
Scatter_Ord_Num_Car	8.2778	7.70642	18
Scatter_Ord_Num_Movie	6.5000	5.07879	18
Table_Num_Num_Car	20.4444	12.55211	18
Table_Num_Num_Movie	28.4444	37.01704	18
Table_Ord_Num_Car	13.5556	11.19465	18
Table_Ord_Num_Movie	11.8333	7.77817	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.671	7.149[b]	4.000	14.000
	Wilks' Lambda	.329	7.149[b]	4.000	14.000
	Hotelling's Trace	2.043	7.149[b]	4.000	14.000
	Roy's Largest Root	2.043	7.149[b]	4.000	14.000
DataAttributeTypes	Pillai's Trace	.326	8.231[b]	1.000	17.000
	Wilks' Lambda	.674	8.231[b]	1.000	17.000
	Hotelling's Trace	.484	8.231[b]	1.000	17.000
	Roy's Largest Root	.484	8.231[b]	1.000	17.000
Datasets	Pillai's Trace	.005	.078[b]	1.000	17.000
	Wilks' Lambda	.995	.078[b]	1.000	17.000
	Hotelling's Trace	.005	.078[b]	1.000	17.000
	Roy's Largest Root	.005	.078[b]	1.000	17.000
Visualization * DataAttributeTypes	Pillai's Trace	.442	2.768[b]	4.000	14.000
	Wilks' Lambda	.558	2.768[b]	4.000	14.000
	Hotelling's Trace	.791	2.768[b]	4.000	14.000
	Roy's Largest Root	.791	2.768[b]	4.000	14.000
Visualization * Datasets	Pillai's Trace	.124	.495[b]	4.000	14.000
	Wilks' Lambda	.876	.495[b]	4.000	14.000
	Hotelling's Trace	.141	.495[b]	4.000	14.000
	Roy's Largest Root	.141	.495[b]	4.000	14.000
DataAttributeTypes * Datasets	Pillai's Trace	.000	.002[b]	1.000	17.000
	Wilks' Lambda	1.000	.002[b]	1.000	17.000
	Hotelling's Trace	.000	.002[b]	1.000	17.000
	Roy's Largest Root	.000	.002[b]	1.000	17.000
Visualization * DataAttributeTypes * Datasets	Pillai's Trace	.324	1.678[b]	4.000	14.000
	Wilks' Lambda	.676	1.678[b]	4.000	14.000
	Hotelling's Trace	.480	1.678[b]	4.000	14.000
	Roy's Largest Root	.480	1.678[b]	4.000	14.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.002	.671	28.596
	Wilks' Lambda	.002	.671	28.596
	Hotelling's Trace	.002	.671	28.596
	Roy's Largest Root	.002	.671	28.596
DataAttributeTypes	Pillai's Trace	.011	.326	8.231
	Wilks' Lambda	.011	.326	8.231
	Hotelling's Trace	.011	.326	8.231
	Roy's Largest Root	.011	.326	8.231
Datasets	Pillai's Trace	.783	.005	.078
	Wilks' Lambda	.783	.005	.078
	Hotelling's Trace	.783	.005	.078
	Roy's Largest Root	.783	.005	.078
Visualization * DataAttributeTypes	Pillai's Trace	.069	.442	11.072
	Wilks' Lambda	.069	.442	11.072
	Hotelling's Trace	.069	.442	11.072
	Roy's Largest Root	.069	.442	11.072
Visualization * Datasets	Pillai's Trace	.740	.124	1.980
	Wilks' Lambda	.740	.124	1.980
	Hotelling's Trace	.740	.124	1.980
	Roy's Largest Root	.740	.124	1.980
DataAttributeTypes * Datasets	Pillai's Trace	.964	.000	.002
	Wilks' Lambda	.964	.000	.002
	Hotelling's Trace	.964	.000	.002
	Roy's Largest Root	.964	.000	.002
Visualization * DataAttributeTypes * Datasets	Pillai's Trace	.211	.324	6.714
	Wilks' Lambda	.211	.324	6.714
	Hotelling's Trace	.211	.324	6.714
	Roy's Largest Root	.211	.324	6.714

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	.966
	Wilks' Lambda	.966
	Hotelling's Trace	.966
	Roy's Largest Root	.966
DataAttributeTypes	Pillai's Trace	.772
	Wilks' Lambda	.772
	Hotelling's Trace	.772
	Roy's Largest Root	.772
Datasets	Pillai's Trace	.058
	Wilks' Lambda	.058
	Hotelling's Trace	.058
	Roy's Largest Root	.058
Visualization * DataAttributeTypes	Pillai's Trace	.603
	Wilks' Lambda	.603
	Hotelling's Trace	.603
	Roy's Largest Root	.603
Visualization * Datasets	Pillai's Trace	.134
	Wilks' Lambda	.134
	Hotelling's Trace	.134
	Roy's Largest Root	.134
DataAttributeTypes * Datasets	Pillai's Trace	.050
	Wilks' Lambda	.050
	Hotelling's Trace	.050
	Roy's Largest Root	.050
Visualization * DataAttributeTypes * Datasets	Pillai's Trace	.386
	Wilks' Lambda	.386
	Hotelling's Trace	.386
	Roy's Largest Root	.386

a. Design: Intercept
Within Subjects Design: Visualization + DataAttributeTypes + Datasets + Visualization * DataAttributeTypes + Visualization * Datasets + DataAttributeTypes * Datasets + 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	.016	63.572	9	.000	.494
DataAttributeTypes	1.000	.000	0	.	1.000
Datasets	1.000	.000	0	.	1.000
Visualization * DataAttributeTypes	.110	34.005	9	.000	.592
Visualization * Datasets	.078	39.239	9	.000	.569
DataAttributeTypes * Datasets	1.000	.000	0	.	1.000
Visualization * DataAttributeTypes * Datasets	.105	34.765	9	.000	.571

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	.559	.250
DataAttributeTypes	1.000	1.000
Datasets	1.000	1.000
Visualization * DataAttributeTypes	.694	.250
Visualization * Datasets	.662	.250
DataAttributeTypes * Datasets	1.000	1.000
Visualization * DataAttributeTypes * Datasets	.665	.250

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 + Datasets + Visualization * DataAttributeTypes + Visualization * Datasets + DataAttributeTypes * Datasets + 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	9758.344	4	2439.586	12.441
	Greenhouse-Geisser	9758.344	1.976	4938.098	12.441
	Huynh-Feldt	9758.344	2.234	4367.180	12.441
	Lower-bound	9758.344	1.000	9758.344	12.441
Error(Visualization)	Sphericity Assumed	13334.256	68	196.092	
	Greenhouse-Geisser	13334.256	33.594	396.920	
	Huynh-Feldt	13334.256	37.986	351.030	
	Lower-bound	13334.256	17.000	784.368	
DataAttributeTypes	Sphericity Assumed	2619.003	1	2619.003	8.231
	Greenhouse-Geisser	2619.003	1.000	2619.003	8.231
	Huynh-Feldt	2619.003	1.000	2619.003	8.231
	Lower-bound	2619.003	1.000	2619.003	8.231
Error(DataAttributeTypes)	Sphericity Assumed	5409.047	17	318.179	
	Greenhouse-Geisser	5409.047	17.000	318.179	
	Huynh-Feldt	5409.047	17.000	318.179	
	Lower-bound	5409.047	17.000	318.179	
Datasets	Sphericity Assumed	19.136	1	19.136	.078
	Greenhouse-Geisser	19.136	1.000	19.136	.078
	Huynh-Feldt	19.136	1.000	19.136	.078
	Lower-bound	19.136	1.000	19.136	.078
Error(Datasets)	Sphericity Assumed	4164.114	17	244.948	
	Greenhouse-Geisser	4164.114	17.000	244.948	
	Huynh-Feldt	4164.114	17.000	244.948	
	Lower-bound	4164.114	17.000	244.948	
Visualization * DataAttributeTypes	Sphericity Assumed	1447.344	4	361.836	3.454
	Greenhouse-Geisser	1447.344	2.367	611.561	3.454

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.423	49.764
	Greenhouse-Geisser	.000	.423	24.585
	Huynh-Feldt	.000	.423	27.799
	Lower-bound	.003	.423	12.441
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes	Sphericity Assumed	.011	.326	8.231
	Greenhouse-Geisser	.011	.326	8.231
	Huynh-Feldt	.011	.326	8.231
	Lower-bound	.011	.326	8.231
Error(DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Datasets	Sphericity Assumed	.783	.005	.078
	Greenhouse-Geisser	.783	.005	.078
	Huynh-Feldt	.783	.005	.078
	Lower-bound	.783	.005	.078
Error(Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes	Sphericity Assumed	.013	.169	13.815
	Greenhouse-Geisser	.034	.169	8.174

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	1.000
	Greenhouse-Geisser	.993
	Huynh-Feldt	.996
	Lower-bound	.913
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes	Sphericity Assumed	.772
	Greenhouse-Geisser	.772
	Huynh-Feldt	.772
	Lower-bound	.772
Error(DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Datasets	Sphericity Assumed	.058
	Greenhouse-Geisser	.058
	Huynh-Feldt	.058
	Lower-bound	.058
Error(Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes	Sphericity Assumed	.833
	Greenhouse-Geisser	.663

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	1447.344	2.774	521.670	3.454
	Lower-bound	1447.344	1.000	1447.344	3.454
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	7123.856	68	104.763	
	Greenhouse-Geisser	7123.856	40.233	177.066	
	Huynh-Feldt	7123.856	47.166	151.039	
	Lower-bound	7123.856	17.000	419.050	
Visualization * Datasets	Sphericity Assumed	191.044	4	47.761	.443
	Greenhouse-Geisser	191.044	2.277	83.904	.443
	Huynh-Feldt	191.044	2.648	72.149	.443
	Lower-bound	191.044	1.000	191.044	.443
Error (Visualization*Datasets)	Sphericity Assumed	7334.956	68	107.867	
	Greenhouse-Geisser	7334.956	38.708	189.494	
	Huynh-Feldt	7334.956	45.014	162.947	
	Lower-bound	7334.956	17.000	431.468	
DataAttributeTypes * Datasets	Sphericity Assumed	.625	1	.625	.002
	Greenhouse-Geisser	.625	1.000	.625	.002
	Huynh-Feldt	.625	1.000	.625	.002
	Lower-bound	.625	1.000	.625	.002
Error (DataAttributeTypes*Datasets)	Sphericity Assumed	5016.225	17	295.072	
	Greenhouse-Geisser	5016.225	17.000	295.072	
	Huynh-Feldt	5016.225	17.000	295.072	
	Lower-bound	5016.225	17.000	295.072	
Visualization * DataAttributeTypes * Datasets	Sphericity Assumed	1156.222	4	289.056	1.959
	Greenhouse-Geisser	1156.222	2.285	505.904	1.959
	Huynh-Feldt	1156.222	2.660	434.697	1.959
	Lower-bound	1156.222	1.000	1156.222	1.959
Error (Visualization*DataAttributeTypes*Datasets)	Sphericity Assumed	10033.178	68	147.547	
	Greenhouse-Geisser	10033.178	38.853	258.236	
	Huynh-Feldt	10033.178	45.217	221.889	
	Lower-bound	10033.178	17.000	590.187	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.027	.169	9.583
	Lower-bound	.081	.169	3.454
Error (Visualization*DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Datasets	Sphericity Assumed	.777	.025	1.771
	Greenhouse-Geisser	.671	.025	1.008
	Huynh-Feldt	.700	.025	1.172
	Lower-bound	.515	.025	.443
Error (Visualization*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes * Datasets	Sphericity Assumed	.964	.000	.002
	Greenhouse-Geisser	.964	.000	.002
	Huynh-Feldt	.964	.000	.002
	Lower-bound	.964	.000	.002
Error (DataAttributeTypes*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes * Datasets	Sphericity Assumed	.111	.103	7.836
	Greenhouse-Geisser	.149	.103	4.477
	Huynh-Feldt	.140	.103	5.211
	Lower-bound	.180	.103	1.959
Error (Visualization*DataAttributeTypes*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
	Huynh-Feldt	.716
	Lower-bound	.418
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Datasets	Sphericity Assumed	.148
	Greenhouse-Geisser	.121
	Huynh-Feldt	.127
	Lower-bound	.096
Error (Visualization*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes * Datasets	Sphericity Assumed	.050
	Greenhouse-Geisser	.050
	Huynh-Feldt	.050
	Lower-bound	.050
Error (DataAttributeTypes*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes * Datasets	Sphericity Assumed	.561
	Greenhouse-Geisser	.407
	Huynh-Feldt	.444
	Lower-bound	.262
Error (Visualization*DataAttributeTypes*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Type III Sum of Squares	df
Visualization	Linear			2745.606	1
	Quadratic			10.321	1
	Cubic			163.401	1
	Order 4			6839.016	1
Error(Visualization)	Linear			2352.394	17
	Quadratic			2969.321	17
	Cubic			564.974	17
	Order 4			7447.566	17
DataAttributeTypes		Linear		2619.003	1
Error(DataAttributeTypes)		Linear		5409.047	17
Datasets			Linear	19.136	1
Error(Datasets)			Linear	4164.114	17
Visualization * DataAttributeTypes	Linear	Linear		1115.022	1
	Quadratic	Linear		1.921	1
	Cubic	Linear		111.235	1
	Order 4	Linear		219.167	1
Error (Visualization*DataAttributeTypes)	Linear	Linear		1896.578	17
	Quadratic	Linear		1848.008	17
	Cubic	Linear		635.040	17
	Order 4	Linear		2744.230	17
Visualization * Datasets	Linear		Linear	52.272	1
	Quadratic		Linear	135.813	1
	Cubic		Linear	1.901	1
	Order 4		Linear	1.057	1
Error (Visualization*Datasets)	Linear		Linear	2162.528	17
	Quadratic		Linear	1643.544	17
	Cubic		Linear	656.174	17
	Order 4		Linear	2872.711	17
DataAttributeTypes * Datasets		Linear	Linear	.625	1
Error (DataAttributeTypes*Datasets)		Linear	Linear	5016.225	17
Visualization * DataAttributeTypes *	Linear	Linear	Linear	273.800	1
	Quadratic	Linear	Linear	579.063	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Mean Square	F
Visualization	Linear			2745.606	19.842
	Quadratic			10.321	.059
	Cubic			163.401	4.917
	Order 4			6839.016	15.611
Error(Visualization)	Linear			138.376	
	Quadratic			174.666	
	Cubic			33.234	
	Order 4			438.092	
DataAttributeTypes		Linear		2619.003	8.231
Error(DataAttributeTypes)		Linear		318.179	
Datasets			Linear	19.136	.078
Error(Datasets)			Linear	244.948	
Visualization * DataAttributeTypes	Linear	Linear		1115.022	9.995
	Quadratic	Linear		1.921	.018
	Cubic	Linear		111.235	2.978
	Order 4	Linear		219.167	1.358
Error (Visualization*DataAttributeTypes)	Linear	Linear		111.563	
	Quadratic	Linear		108.706	
	Cubic	Linear		37.355	
	Order 4	Linear		161.425	
Visualization * Datasets	Linear		Linear	52.272	.411
	Quadratic		Linear	135.813	1.405
	Cubic		Linear	1.901	.049
	Order 4		Linear	1.057	.006
Error (Visualization*Datasets)	Linear		Linear	127.208	
	Quadratic		Linear	96.679	
	Cubic		Linear	38.598	
	Order 4		Linear	168.983	
DataAttributeTypes * Datasets		Linear	Linear	.625	.002
Error (DataAttributeTypes*Datasets)		Linear	Linear	295.072	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	273.800	1.356
	Quadratic	Linear	Linear	579.063	5.877

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Sig.	Partial Eta Squared
Visualization	Linear			.000	.539
	Quadratic			.811	.003
	Cubic			.041	.224
	Order 4			.001	.479
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeTypes		Linear		.011	.326
Error(DataAttributeTypes)		Linear			
Datasets			Linear	.783	.005
Error(Datasets)			Linear		
Visualization * DataAttributeTypes	Linear	Linear		.006	.370
	Quadratic	Linear		.896	.001
	Cubic	Linear		.103	.149
	Order 4	Linear		.260	.074
Error (Visualization*DataAttributeTypes)	Linear	Linear			
	Quadratic	Linear			
	Cubic	Linear			
	Order 4	Linear			
Visualization * Datasets	Linear		Linear	.530	.024
	Quadratic		Linear	.252	.076
	Cubic		Linear	.827	.003
	Order 4		Linear	.938	.000
Error (Visualization*Datasets)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributeTypes * Datasets		Linear	Linear	.964	.000
Error (DataAttributeTypes*Datasets)		Linear	Linear		
Visualization * DataAttributeTypes *	Linear	Linear	Linear	.260	.074
	Quadratic	Linear	Linear	.027	.257

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Noncent. Parameter
Visualization	Linear			19.842
	Quadratic			.059
	Cubic			4.917
	Order 4			15.611
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		8.231
Error(DataAttributeTypes)		Linear		
Datasets			Linear	.078
Error(Datasets)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		9.995
	Quadratic	Linear		.018
	Cubic	Linear		2.978
	Order 4	Linear		1.358
Error (Visualization*DataAttributeTypes)	Linear	Linear		
	Quadratic	Linear		
	Cubic	Linear		
	Order 4	Linear		
Visualization * Datasets	Linear		Linear	.411
	Quadratic		Linear	1.405
	Cubic		Linear	.049
	Order 4		Linear	.006
Error (Visualization*Datasets)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTypes * Datasets		Linear	Linear	.002
Error (DataAttributeTypes*Datasets)		Linear	Linear	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	1.356
	Quadratic	Linear	Linear	5.877

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Observed Power[a]
Visualization	Linear			.987
	Quadratic			.056
	Cubic			.552
	Order 4			.961
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.772
Error(DataAttributeTypes)		Linear		
Datasets			Linear	.058
Error(Datasets)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.846
	Quadratic	Linear		.052
	Cubic	Linear		.370
	Order 4	Linear		.196
Error (Visualization*DataAttributeTypes)	Linear	Linear		
	Quadratic	Linear		
	Cubic	Linear		
	Order 4	Linear		
Visualization * Datasets	Linear		Linear	.093
	Quadratic		Linear	.201
	Cubic		Linear	.055
	Order 4		Linear	.051
Error (Visualization*Datasets)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTypes * Datasets		Linear	Linear	.050
Error (DataAttributeTypes*Datasets)		Linear	Linear	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	.196
	Quadratic	Linear	Linear	.628

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Type III Sum of Squares	df
Datasets	Cubic	Linear	Linear	.735	1
	Order 4	Linear	Linear	302.624	1
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear	3433.200	17
	Quadratic	Linear	Linear	1675.008	17
	Cubic	Linear	Linear	1096.640	17
	Order 4	Linear	Linear	3828.330	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Mean Square	F
Datasets	Cubic	Linear	Linear	.735	.011
	Order 4	Linear	Linear	302.624	1.344
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear	201.953	
	Quadratic	Linear	Linear	98.530	
	Cubic	Linear	Linear	64.508	
	Order 4	Linear	Linear	225.196	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Sig.	Partial Eta Squared
Datasets	Cubic	Linear	Linear	.916	.001
	Order 4	Linear	Linear	.262	.073
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear		
	Quadratic	Linear	Linear		
	Cubic	Linear	Linear		
	Order 4	Linear	Linear		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Noncent. Parameter
Datasets	Cubic	Linear	Linear	.011
	Order 4	Linear	Linear	1.344
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear	
	Quadratic	Linear	Linear	
	Cubic	Linear	Linear	
	Order 4	Linear	Linear	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Observed Power[a]
Datasets	Cubic	Linear	Linear	.051
	Order 4	Linear	Linear	.195
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear	
	Quadratic	Linear	Linear	
	Cubic	Linear	Linear	
	Order 4	Linear	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	62964.225	1	62964.225	37.185	.000	.686
Error	28785.425	17	1693.260			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	37.185	1.000
Error		

a. Computed using alpha = .05

Estimated Marginal Means

1. Visualization

Measure: MEASURE_1

Visualization	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	9.806	1.955	5.681	13.930
2	7.667	1.000	5.556	9.777
3	20.417	4.143	11.675	29.159
4	9.667	1.530	6.438	12.896
5	18.569	3.175	11.871	25.267

2. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
13.225	2.169	8.649	17.801

3. DataAttributeTypes

Measure: MEASURE_1

DataAttributeTypes	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	15.922	2.966	9.665	22.179
2	10.528	1.542	7.274	13.782

4. Visualization * DataAttributeTypes

Measure: MEASURE_1

Visualization	DataAttributeTypes	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	9.917	2.165	5.348	14.485
	2	9.694	1.869	5.752	13.637
2	1	9.028	1.447	5.975	12.081
	2	6.306	.760	4.703	7.908
3	1	24.278	5.815	12.010	36.545
	2	16.556	3.176	9.856	23.256
4	1	11.944	2.141	7.428	16.461
	2	7.389	1.227	4.800	9.978
5	1	24.444	4.908	14.090	34.799
	2	12.694	2.093	8.278	17.111

```
GLM Bar_Num_Num_Car Bar_Num_Num_MovieBar_Ord_Num_Car Bar_Ord_Num_MovieLine_N
um_Num_Car
    Line_Num_Num_MovieLine_Ord_Num_Car Line_Ord_Num_MoviePie_Num_Num_Car Pie
_Num_Num_Movie
    Pie_Ord_Num_Car Pie_Ord_Num_MovieScatter_Num_Num_CarScatter_Num_Num_Movi
e Scatter_Ord_Num_Car
    Scatter_Ord_Num_MovieTable_Num_Num_CarTable_Num_Num_MovieTable_Ord_Num_
Car Table_Ord_Num_Movie
  /WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 2 Polynomial Dataset
s 2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(Visualization) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(DataAttributeTypes) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Visualization*DataAttributeTypes)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Visualization DataAttributeTypesDatasets Visualization*DataAttrib
uteTypes
    Visualization*Datasets DataAttributeTypes*Datasets Visualization*DataAttri
buteTypes*Datasets.
```

General Linear Model

Notes

Output Created		06-SEP-2016 12:56:51
Comments		
Input	Data	C:\Users\Bahador\Desktop\Analysis\Correlation\Correlation_Time.sav
	Active Dataset	DataSet2
	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_Num_Num_Car Bar_Num_Num_Movie Bar_Ord_Num_Car Bar_Ord_Num_Movie Line_Num_Num_Car Line_Num_Num_Movie Line_Ord_Num_Car Line_Ord_Num_Movie Pie_Num_Num_Car Pie_Num_Num_Movie Pie_Ord_Num_Car Pie_Ord_Num_Movie Scatter_Num_Num_Car Scatter_Num_Num_Movie Scatter_Ord_Num_Car Scatter_Ord_Num_Movie Table_Num_Num_Car Table_Num_Num_Movie Table_Ord_Num_Car Table_Ord_Num_Movie /WSFACTOR=Visualization 5 Polynomial DataAttributeTypes 2 Polynomial Datasets 2 Polynomial /METHOD=SSTYPE(3) /EMMEANS=TABLES (Visualization) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES (OVERALL) /EMMEANS=TABLES (DataAttributeTypes) COMPARE ADJ (BONFERRONI) /EMMEANS=TABLES (Visualization*DataAttributeTypes) /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=Visualization DataAttributeTypes Datasets Visualization*DataAttributeTypes Visualization*Datasets DataAttributeTypes*Datasets Visualization*DataAttributeTypes*Datasets.

Notes

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

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	Datasets	Dependent Variable
1	1	1	Bar_Num_Num_Car
		2	Bar_Num_Num_Movie
	2	1	Bar_Ord_Num_Car
		2	Bar_Ord_Num_Movie
2	1	1	Line_Num_Num_Car
		2	Line_Num_Num_Movie
	2	1	Line_Ord_Num_Car
		2	Line_Ord_Num_Movie
3	1	1	Pie_Num_Num_Car
		2	Pie_Num_Num_Movie
	2	1	Pie_Ord_Num_Car
		2	Pie_Ord_Num_Movie
4	1	1	Scatter_Num_Num_Car
		2	Scatter_Num_Num_Movie

Within-Subjects Factors

Measure: MEASURE_1

Visualization	DataAttributeTypes	Datasets	Dependent Variable
	2	1	Scatter_Ord_Num_Car
		2	Scatter_Ord_Num_Movie
5	1	1	Table_Num_Num_Car
		2	Table_Num_Num_Movie
	2	1	Table_Ord_Num_Car
		2	Table_Ord_Num_Movie

Descriptive Statistics

	Mean	Std. Deviation	N
Bar_Num_Num_Car	9.5000	10.27991	18
Bar_Num_Num_Movie	10.3333	10.63291	18
Bar_Ord_Num_Car	9.3333	8.31016	18
Bar_Ord_Num_Movie	10.0556	8.30643	18
Line_Num_Num_Car	9.8889	9.76723	18
Line_Num_Num_Movie	8.1667	4.81725	18
Line_Ord_Num_Car	6.1667	4.06202	18
Line_Ord_Num_Movie	6.4444	4.16176	18
Pie_Num_Num_Car	27.7222	28.53235	18
Pie_Num_Num_Movie	20.8333	29.48429	18
Pie_Ord_Num_Car	13.9444	12.23530	18
Pie_Ord_Num_Movie	19.1667	19.45508	18
Scatter_Num_Num_Car	11.1111	7.26708	18
Scatter_Num_Num_Movie	12.7778	14.28514	18
Scatter_Ord_Num_Car	8.2778	7.70642	18
Scatter_Ord_Num_Movie	6.5000	5.07879	18
Table_Num_Num_Car	20.4444	12.55211	18
Table_Num_Num_Movie	28.4444	37.01704	18
Table_Ord_Num_Car	13.5556	11.19465	18
Table_Ord_Num_Movie	11.8333	7.77817	18

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Visualization	Pillai's Trace	.671	7.149[b]	4.000	14.000
	Wilks' Lambda	.329	7.149[b]	4.000	14.000
	Hotelling's Trace	2.043	7.149[b]	4.000	14.000
	Roy's Largest Root	2.043	7.149[b]	4.000	14.000
DataAttributeTypes	Pillai's Trace	.326	8.231[b]	1.000	17.000
	Wilks' Lambda	.674	8.231[b]	1.000	17.000
	Hotelling's Trace	.484	8.231[b]	1.000	17.000
	Roy's Largest Root	.484	8.231[b]	1.000	17.000
Datasets	Pillai's Trace	.005	.078[b]	1.000	17.000
	Wilks' Lambda	.995	.078[b]	1.000	17.000
	Hotelling's Trace	.005	.078[b]	1.000	17.000
	Roy's Largest Root	.005	.078[b]	1.000	17.000
Visualization * DataAttributeTypes	Pillai's Trace	.442	2.768[b]	4.000	14.000
	Wilks' Lambda	.558	2.768[b]	4.000	14.000
	Hotelling's Trace	.791	2.768[b]	4.000	14.000
	Roy's Largest Root	.791	2.768[b]	4.000	14.000
Visualization * Datasets	Pillai's Trace	.124	.495[b]	4.000	14.000
	Wilks' Lambda	.876	.495[b]	4.000	14.000
	Hotelling's Trace	.141	.495[b]	4.000	14.000
	Roy's Largest Root	.141	.495[b]	4.000	14.000
DataAttributeTypes * Datasets	Pillai's Trace	.000	.002[b]	1.000	17.000
	Wilks' Lambda	1.000	.002[b]	1.000	17.000
	Hotelling's Trace	.000	.002[b]	1.000	17.000
	Roy's Largest Root	.000	.002[b]	1.000	17.000
Visualization * DataAttributeTypes * Datasets	Pillai's Trace	.324	1.678[b]	4.000	14.000
	Wilks' Lambda	.676	1.678[b]	4.000	14.000
	Hotelling's Trace	.480	1.678[b]	4.000	14.000
	Roy's Largest Root	.480	1.678[b]	4.000	14.000

Multivariate Tests[a]

Effect		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Pillai's Trace	.002	.671	28.596
	Wilks' Lambda	.002	.671	28.596
	Hotelling's Trace	.002	.671	28.596
	Roy's Largest Root	.002	.671	28.596
DataAttributeTypes	Pillai's Trace	.011	.326	8.231
	Wilks' Lambda	.011	.326	8.231
	Hotelling's Trace	.011	.326	8.231
	Roy's Largest Root	.011	.326	8.231
Datasets	Pillai's Trace	.783	.005	.078
	Wilks' Lambda	.783	.005	.078
	Hotelling's Trace	.783	.005	.078
	Roy's Largest Root	.783	.005	.078
Visualization * DataAttributeTypes	Pillai's Trace	.069	.442	11.072
	Wilks' Lambda	.069	.442	11.072
	Hotelling's Trace	.069	.442	11.072
	Roy's Largest Root	.069	.442	11.072
Visualization * Datasets	Pillai's Trace	.740	.124	1.980
	Wilks' Lambda	.740	.124	1.980
	Hotelling's Trace	.740	.124	1.980
	Roy's Largest Root	.740	.124	1.980
DataAttributeTypes * Datasets	Pillai's Trace	.964	.000	.002
	Wilks' Lambda	.964	.000	.002
	Hotelling's Trace	.964	.000	.002
	Roy's Largest Root	.964	.000	.002
Visualization * DataAttributeTypes * Datasets	Pillai's Trace	.211	.324	6.714
	Wilks' Lambda	.211	.324	6.714
	Hotelling's Trace	.211	.324	6.714
	Roy's Largest Root	.211	.324	6.714

Multivariate Tests[a]

Effect		Observed Power[c]
Visualization	Pillai's Trace	.966
	Wilks' Lambda	.966
	Hotelling's Trace	.966
	Roy's Largest Root	.966
DataAttributeTypes	Pillai's Trace	.772
	Wilks' Lambda	.772
	Hotelling's Trace	.772
	Roy's Largest Root	.772
Datasets	Pillai's Trace	.058
	Wilks' Lambda	.058
	Hotelling's Trace	.058
	Roy's Largest Root	.058
Visualization * DataAttributeTypes	Pillai's Trace	.603
	Wilks' Lambda	.603
	Hotelling's Trace	.603
	Roy's Largest Root	.603
Visualization * Datasets	Pillai's Trace	.134
	Wilks' Lambda	.134
	Hotelling's Trace	.134
	Roy's Largest Root	.134
DataAttributeTypes * Datasets	Pillai's Trace	.050
	Wilks' Lambda	.050
	Hotelling's Trace	.050
	Roy's Largest Root	.050
Visualization * DataAttributeTypes * Datasets	Pillai's Trace	.386
	Wilks' Lambda	.386
	Hotelling's Trace	.386
	Roy's Largest Root	.386

a. Design: Intercept
Within Subjects Design: Visualization + DataAttributeTypes + Datasets + Visualization * DataAttributeTypes + Visualization * Datasets + DataAttributeTypes * Datasets + 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	.016	63.572	9	.000	.494
DataAttributeTypes	1.000	.000	0	.	1.000
Datasets	1.000	.000	0	.	1.000
Visualization * DataAttributeTypes	.110	34.005	9	.000	.592
Visualization * Datasets	.078	39.239	9	.000	.569
DataAttributeTypes * Datasets	1.000	.000	0	.	1.000
Visualization * DataAttributeTypes * Datasets	.105	34.765	9	.000	.571

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Visualization	.559	.250
DataAttributeTypes	1.000	1.000
Datasets	1.000	1.000
Visualization * DataAttributeTypes	.694	.250
Visualization * Datasets	.662	.250
DataAttributeTypes * Datasets	1.000	1.000
Visualization * DataAttributeTypes * Datasets	.665	.250

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 + Datasets + Visualization * DataAttributeTypes + Visualization * Datasets + DataAttributeTypes * Datasets + 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	9758.344	4	2439.586	12.441
	Greenhouse-Geisser	9758.344	1.976	4938.098	12.441
	Huynh-Feldt	9758.344	2.234	4367.180	12.441
	Lower-bound	9758.344	1.000	9758.344	12.441
Error(Visualization)	Sphericity Assumed	13334.256	68	196.092	
	Greenhouse-Geisser	13334.256	33.594	396.920	
	Huynh-Feldt	13334.256	37.986	351.030	
	Lower-bound	13334.256	17.000	784.368	
DataAttributeTypes	Sphericity Assumed	2619.003	1	2619.003	8.231
	Greenhouse-Geisser	2619.003	1.000	2619.003	8.231
	Huynh-Feldt	2619.003	1.000	2619.003	8.231
	Lower-bound	2619.003	1.000	2619.003	8.231
Error(DataAttributeTypes)	Sphericity Assumed	5409.047	17	318.179	
	Greenhouse-Geisser	5409.047	17.000	318.179	
	Huynh-Feldt	5409.047	17.000	318.179	
	Lower-bound	5409.047	17.000	318.179	
Datasets	Sphericity Assumed	19.136	1	19.136	.078
	Greenhouse-Geisser	19.136	1.000	19.136	.078
	Huynh-Feldt	19.136	1.000	19.136	.078
	Lower-bound	19.136	1.000	19.136	.078
Error(Datasets)	Sphericity Assumed	4164.114	17	244.948	
	Greenhouse-Geisser	4164.114	17.000	244.948	
	Huynh-Feldt	4164.114	17.000	244.948	
	Lower-bound	4164.114	17.000	244.948	
Visualization * DataAttributeTypes	Sphericity Assumed	1447.344	4	361.836	3.454
	Greenhouse-Geisser	1447.344	2.367	611.561	3.454

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
Visualization	Sphericity Assumed	.000	.423	49.764
	Greenhouse-Geisser	.000	.423	24.585
	Huynh-Feldt	.000	.423	27.799
	Lower-bound	.003	.423	12.441
Error(Visualization)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes	Sphericity Assumed	.011	.326	8.231
	Greenhouse-Geisser	.011	.326	8.231
	Huynh-Feldt	.011	.326	8.231
	Lower-bound	.011	.326	8.231
Error(DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Datasets	Sphericity Assumed	.783	.005	.078
	Greenhouse-Geisser	.783	.005	.078
	Huynh-Feldt	.783	.005	.078
	Lower-bound	.783	.005	.078
Error(Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes	Sphericity Assumed	.013	.169	13.815
	Greenhouse-Geisser	.034	.169	8.174

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
Visualization	Sphericity Assumed	1.000
	Greenhouse-Geisser	.993
	Huynh-Feldt	.996
	Lower-bound	.913
Error(Visualization)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes	Sphericity Assumed	.772
	Greenhouse-Geisser	.772
	Huynh-Feldt	.772
	Lower-bound	.772
Error(DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Datasets	Sphericity Assumed	.058
	Greenhouse-Geisser	.058
	Huynh-Feldt	.058
	Lower-bound	.058
Error(Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes	Sphericity Assumed	.833
	Greenhouse-Geisser	.663

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
	Huynh-Feldt	1447.344	2.774	521.670	3.454
	Lower-bound	1447.344	1.000	1447.344	3.454
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	7123.856	68	104.763	
	Greenhouse-Geisser	7123.856	40.233	177.066	
	Huynh-Feldt	7123.856	47.166	151.039	
	Lower-bound	7123.856	17.000	419.050	
Visualization * Datasets	Sphericity Assumed	191.044	4	47.761	.443
	Greenhouse-Geisser	191.044	2.277	83.904	.443
	Huynh-Feldt	191.044	2.648	72.149	.443
	Lower-bound	191.044	1.000	191.044	.443
Error (Visualization*Datasets)	Sphericity Assumed	7334.956	68	107.867	
	Greenhouse-Geisser	7334.956	38.708	189.494	
	Huynh-Feldt	7334.956	45.014	162.947	
	Lower-bound	7334.956	17.000	431.468	
DataAttributeTypes * Datasets	Sphericity Assumed	.625	1	.625	.002
	Greenhouse-Geisser	.625	1.000	.625	.002
	Huynh-Feldt	.625	1.000	.625	.002
	Lower-bound	.625	1.000	.625	.002
Error (DataAttributeTypes*Datasets)	Sphericity Assumed	5016.225	17	295.072	
	Greenhouse-Geisser	5016.225	17.000	295.072	
	Huynh-Feldt	5016.225	17.000	295.072	
	Lower-bound	5016.225	17.000	295.072	
Visualization * DataAttributeTypes * Datasets	Sphericity Assumed	1156.222	4	289.056	1.959
	Greenhouse-Geisser	1156.222	2.285	505.904	1.959
	Huynh-Feldt	1156.222	2.660	434.697	1.959
	Lower-bound	1156.222	1.000	1156.222	1.959
Error (Visualization*DataAttributeTypes*Datasets)	Sphericity Assumed	10033.178	68	147.547	
	Greenhouse-Geisser	10033.178	38.853	258.236	
	Huynh-Feldt	10033.178	45.217	221.889	
	Lower-bound	10033.178	17.000	590.187	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.	Partial Eta Squared	Noncent. Parameter
	Huynh-Feldt	.027	.169	9.583
	Lower-bound	.081	.169	3.454
Error (Visualization*DataAttributeTypes)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * Datasets	Sphericity Assumed	.777	.025	1.771
	Greenhouse-Geisser	.671	.025	1.008
	Huynh-Feldt	.700	.025	1.172
	Lower-bound	.515	.025	.443
Error (Visualization*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
DataAttributeTypes * Datasets	Sphericity Assumed	.964	.000	.002
	Greenhouse-Geisser	.964	.000	.002
	Huynh-Feldt	.964	.000	.002
	Lower-bound	.964	.000	.002
Error (DataAttributeTypes*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Visualization * DataAttributeTypes * Datasets	Sphericity Assumed	.111	.103	7.836
	Greenhouse-Geisser	.149	.103	4.477
	Huynh-Feldt	.140	.103	5.211
	Lower-bound	.180	.103	1.959
Error (Visualization*DataAttributeTypes*Datasets)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Observed Power[a]
	Huynh-Feldt	.716
	Lower-bound	.418
Error (Visualization*DataAttributeTypes)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * Datasets	Sphericity Assumed	.148
	Greenhouse-Geisser	.121
	Huynh-Feldt	.127
	Lower-bound	.096
Error (Visualization*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
DataAttributeTypes * Datasets	Sphericity Assumed	.050
	Greenhouse-Geisser	.050
	Huynh-Feldt	.050
	Lower-bound	.050
Error (DataAttributeTypes*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	
Visualization * DataAttributeTypes * Datasets	Sphericity Assumed	.561
	Greenhouse-Geisser	.407
	Huynh-Feldt	.444
	Lower-bound	.262
Error (Visualization*DataAttributeTypes*Datasets)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

a. Computed using alpha = .05

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Type III Sum of Squares	df
Visualization	Linear			2745.606	1
	Quadratic			10.321	1
	Cubic			163.401	1
	Order 4			6839.016	1
Error(Visualization)	Linear			2352.394	17
	Quadratic			2969.321	17
	Cubic			564.974	17
	Order 4			7447.566	17
DataAttributeTypes		Linear		2619.003	1
Error(DataAttributeTypes)		Linear		5409.047	17
Datasets			Linear	19.136	1
Error(Datasets)			Linear	4164.114	17
Visualization * DataAttributeTypes	Linear	Linear		1115.022	1
	Quadratic	Linear		1.921	1
	Cubic	Linear		111.235	1
	Order 4	Linear		219.167	1
Error (Visualization*DataAttributeTypes)	Linear	Linear		1896.578	17
	Quadratic	Linear		1848.008	17
	Cubic	Linear		635.040	17
	Order 4	Linear		2744.230	17
Visualization * Datasets	Linear		Linear	52.272	1
	Quadratic		Linear	135.813	1
	Cubic		Linear	1.901	1
	Order 4		Linear	1.057	1
Error (Visualization*Datasets)	Linear		Linear	2162.528	17
	Quadratic		Linear	1643.544	17
	Cubic		Linear	656.174	17
	Order 4		Linear	2872.711	17
DataAttributeTypes * Datasets		Linear	Linear	.625	1
Error (DataAttributeTypes*Datasets)		Linear	Linear	5016.225	17
Visualization * DataAttributeTypes *	Linear	Linear	Linear	273.800	1
	Quadratic	Linear	Linear	579.063	1

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Mean Square	F
Visualization	Linear			2745.606	19.842
	Quadratic			10.321	.059
	Cubic			163.401	4.917
	Order 4			6839.016	15.611
Error(Visualization)	Linear			138.376	
	Quadratic			174.666	
	Cubic			33.234	
	Order 4			438.092	
DataAttributeTypes		Linear		2619.003	8.231
Error(DataAttributeTypes)		Linear		318.179	
Datasets			Linear	19.136	.078
Error(Datasets)			Linear	244.948	
Visualization * DataAttributeTypes	Linear	Linear		1115.022	9.995
	Quadratic	Linear		1.921	.018
	Cubic	Linear		111.235	2.978
	Order 4	Linear		219.167	1.358
Error (Visualization*DataAttributeTypes)	Linear	Linear		111.563	
	Quadratic	Linear		108.706	
	Cubic	Linear		37.355	
	Order 4	Linear		161.425	
Visualization * Datasets	Linear		Linear	52.272	.411
	Quadratic		Linear	135.813	1.405
	Cubic		Linear	1.901	.049
	Order 4		Linear	1.057	.006
Error (Visualization*Datasets)	Linear		Linear	127.208	
	Quadratic		Linear	96.679	
	Cubic		Linear	38.598	
	Order 4		Linear	168.983	
DataAttributeTypes * Datasets		Linear	Linear	.625	.002
Error (DataAttributeTypes*Datasets)		Linear	Linear	295.072	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	273.800	1.356
	Quadratic	Linear	Linear	579.063	5.877

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Sig.	Partial Eta Squared
Visualization	Linear			.000	.539
	Quadratic			.811	.003
	Cubic			.041	.224
	Order 4			.001	.479
Error(Visualization)	Linear				
	Quadratic				
	Cubic				
	Order 4				
DataAttributeTypes		Linear		.011	.326
Error(DataAttributeTypes)		Linear			
Datasets			Linear	.783	.005
Error(Datasets)			Linear		
Visualization * DataAttributeTypes	Linear	Linear		.006	.370
	Quadratic	Linear		.896	.001
	Cubic	Linear		.103	.149
	Order 4	Linear		.260	.074
Error (Visualization*DataAttributeTypes)	Linear	Linear			
	Quadratic	Linear			
	Cubic	Linear			
	Order 4	Linear			
Visualization * Datasets	Linear		Linear	.530	.024
	Quadratic		Linear	.252	.076
	Cubic		Linear	.827	.003
	Order 4		Linear	.938	.000
Error (Visualization*Datasets)	Linear		Linear		
	Quadratic		Linear		
	Cubic		Linear		
	Order 4		Linear		
DataAttributeTypes * Datasets		Linear	Linear	.964	.000
Error (DataAttributeTypes*Datasets)		Linear	Linear		
Visualization * DataAttributeTypes *	Linear	Linear	Linear	.260	.074
	Quadratic	Linear	Linear	.027	.257

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Noncent. Parameter
Visualization	Linear			19.842
	Quadratic			.059
	Cubic			4.917
	Order 4			15.611
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		8.231
Error(DataAttributeTypes)		Linear		
Datasets			Linear	.078
Error(Datasets)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		9.995
	Quadratic	Linear		.018
	Cubic	Linear		2.978
	Order 4	Linear		1.358
Error (Visualization*DataAttributeTypes)	Linear	Linear		
	Quadratic	Linear		
	Cubic	Linear		
	Order 4	Linear		
Visualization * Datasets	Linear		Linear	.411
	Quadratic		Linear	1.405
	Cubic		Linear	.049
	Order 4		Linear	.006
Error (Visualization*Datasets)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTypes * Datasets		Linear	Linear	.002
Error (DataAttributeTypes*Datasets)		Linear	Linear	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	1.356
	Quadratic	Linear	Linear	5.877

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Observed Power[a]
Visualization	Linear			.987
	Quadratic			.056
	Cubic			.552
	Order 4			.961
Error(Visualization)	Linear			
	Quadratic			
	Cubic			
	Order 4			
DataAttributeTypes		Linear		.772
Error(DataAttributeTypes)		Linear		
Datasets			Linear	.058
Error(Datasets)			Linear	
Visualization * DataAttributeTypes	Linear	Linear		.846
	Quadratic	Linear		.052
	Cubic	Linear		.370
	Order 4	Linear		.196
Error (Visualization*DataAttributeTypes)	Linear	Linear		
	Quadratic	Linear		
	Cubic	Linear		
	Order 4	Linear		
Visualization * Datasets	Linear		Linear	.093
	Quadratic		Linear	.201
	Cubic		Linear	.055
	Order 4		Linear	.051
Error (Visualization*Datasets)	Linear		Linear	
	Quadratic		Linear	
	Cubic		Linear	
	Order 4		Linear	
DataAttributeTypes * Datasets		Linear	Linear	.050
Error (DataAttributeTypes*Datasets)		Linear	Linear	
Visualization * DataAttributeTypes *	Linear	Linear	Linear	.196
	Quadratic	Linear	Linear	.628

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Type III Sum of Squares	df
Datasets	Cubic	Linear	Linear	.735	1
	Order 4	Linear	Linear	302.624	1
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear	3433.200	17
	Quadratic	Linear	Linear	1675.008	17
	Cubic	Linear	Linear	1096.640	17
	Order 4	Linear	Linear	3828.330	17

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Mean Square	F
Datasets	Cubic	Linear	Linear	.735	.011
	Order 4	Linear	Linear	302.624	1.344
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear	201.953	
	Quadratic	Linear	Linear	98.530	
	Cubic	Linear	Linear	64.508	
	Order 4	Linear	Linear	225.196	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Sig.	Partial Eta Squared
Datasets	Cubic	Linear	Linear	.916	.001
	Order 4	Linear	Linear	.262	.073
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear		
	Quadratic	Linear	Linear		
	Cubic	Linear	Linear		
	Order 4	Linear	Linear		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Noncent. Parameter
Datasets	Cubic	Linear	Linear	.011
	Order 4	Linear	Linear	1.344
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear	
	Quadratic	Linear	Linear	
	Cubic	Linear	Linear	
	Order 4	Linear	Linear	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Visualization	DataAttributeTypes	Datasets	Observed Power[a]
Datasets	Cubic	Linear	Linear	.051
	Order 4	Linear	Linear	.195
Error (Visualization*DataAttributeTypes*Datasets)	Linear	Linear	Linear	
	Quadratic	Linear	Linear	
	Cubic	Linear	Linear	
	Order 4	Linear	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	62964.225	1	62964.225	37.185	.000	.686
Error	28785.425	17	1693.260			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Noncent. Parameter	Observed Power[a]
Intercept	37.185	1.000
Error		

a. Computed using alpha = .05

Estimated Marginal Means

1. Visualization

Estimates

Measure: MEASURE_1

Visualization	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	9.806	1.955	5.681	13.930
2	7.667	1.000	5.556	9.777
3	20.417	4.143	11.675	29.159
4	9.667	1.530	6.438	12.896
5	18.569	3.175	11.871	25.267

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]...
					Lower Bound
1	2	2.139	1.155	.816	-1.584
	3	-10.611*	2.550	.007	-18.830
	4	.139	.773	1.000	-2.352
	5	-8.764*	2.067	.006	-15.424
2	1	-2.139	1.155	.816	-5.862
	3	-12.750*	3.374	.015	-23.621
	4	-2.000	.704	.113	-4.267
	5	-10.903*	2.551	.005	-19.123
3	1	10.611*	2.550	.007	2.393
	2	12.750*	3.374	.015	1.879
	4	10.750*	2.950	.020	1.245
	5	1.847	3.119	1.000	-8.202
4	1	-.139	.773	1.000	-2.630
	2	2.000	.704	.113	-.267
	3	-10.750*	2.950	.020	-20.255
	5	-8.903*	2.225	.009	-16.074

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
1	2	5.862
	3	-2.393
	4	2.630
	5	-2.104
2	1	1.584
	3	-1.879
	4	.267
	5	-2.682
3	1	18.830
	2	23.621
	4	20.255
	5	11.897
4	1	2.352
	2	4.267
	3	-1.245
	5	-1.732

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]... Lower Bound
5	1	8.764*	2.067	.006	2.104
	2	10.903*	2.551	.005	2.682
	3	-1.847	3.119	1.000	-11.897
	4	8.903*	2.225	.009	1.732

Pairwise Comparisons

Measure: MEASURE_1

(I) Visualization	(J) Visualization	95% Confidence Interval for [b]... Upper Bound
5	1	15.424
	2	19.123
	3	8.202
	4	16.074

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	.671	7.149[a]	4.000	14.000	.002	.671
Wilks' lambda	.329	7.149[a]	4.000	14.000	.002	.671
Hotelling's trace	2.043	7.149[a]	4.000	14.000	.002	.671
Roy's largest root	2.043	7.149[a]	4.000	14.000	.002	.671

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	28.596	.966
Wilks' lambda	28.596	.966
Hotelling's trace	28.596	.966
Roy's largest root	28.596	.966

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

2. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
13.225	2.169	8.649	17.801

3. DataAttributeTypes

Estimates

Measure: MEASURE_1

DataAttributeTypes	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	15.922	2.966	9.665	22.179
2	10.528	1.542	7.274	13.782

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence [b]...
					Lower Bound
1	2	5.394*	1.880	.011	1.427
2	1	-5.394*	1.880	.011	-9.361

Pairwise Comparisons

Measure: MEASURE_1

(I) DataAttributeTypes	(J) DataAttributeTypes	95% Confidence Interval for [b]...
		Upper Bound
1	2	9.361
2	1	-1.427

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	.326	8.231[a]	1.000	17.000	.011	.326
Wilks' lambda	.674	8.231[a]	1.000	17.000	.011	.326
Hotelling's trace	.484	8.231[a]	1.000	17.000	.011	.326
Roy's largest root	.484	8.231[a]	1.000	17.000	.011	.326

Multivariate Tests

	Noncent. Parameter	Observed Power[b]
Pillai's trace	8.231	.772
Wilks' lambda	8.231	.772
Hotelling's trace	8.231	.772
Roy's largest root	8.231	.772

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

a. Exact statistic

b. Computed using alpha = .05

4. Visualization * DataAttributeTypes

Measure: MEASURE_1

				95% Confidence Interval	
Visualization	DataAttributeTypes	Mean	Std. Error	Lower Bound	Upper Bound
1	1	9.917	2.165	5.348	14.485
	2	9.694	1.869	5.752	13.637
2	1	9.028	1.447	5.975	12.081
	2	6.306	.760	4.703	7.908
3	1	24.278	5.815	12.010	36.545
	2	16.556	3.176	9.856	23.256
4	1	11.944	2.141	7.428	16.461
	2	7.389	1.227	4.800	9.978
5	1	24.444	4.908	14.090	34.799
	2	12.694	2.093	8.278	17.111