```
GLM Angle_Higher Angle_Lower Area_Higher Area_Lower Length_Higher Length_Lower Curve_Higher Cur
  /WSFACTOR=VisualPrimitives 7 Polynomial Magnitude 2 Polynomial
  /METHOD=SSTYPE(3)
  /PLOT=PROFILE(VisualPrimitives*Magnitude)
  /EMMEANS=TABLES(VisualPrimitives) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Magnitude) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(VisualPrimitives*Magnitude)
  /PRINT=DESCRIPTIVE ETASQ HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=VisualPrimitives Magnitude VisualPrimitives*Magnitude.
```

General Linear Model

Notes

Output Created		24-Jul-2015 14:10:34
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	35
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.
Syntax		GLM Angle_Higher Angle_Lower Area_Higher Area_Lower Length_Higher Length_Lower Curve_Higher Curve_Lower Position_Higher Position_Lower Distance_Higher Distance_Lower Texture_Higher Texture_Lower /WSFACTOR=VisualPrimitives 7 Polynomial Magnitude 2 Polynomial /METHOD=SSTYPE(3) /PLOT=PROFILE (VisualPrimitives*Magnitude) /EMMEANS=TABLES (VisualPrimitives) COMPARE ADJ (BONFERRONI) /EMMEANS=TABLES(Magnitude) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES (VisualPrimitives*Magnitude) /PRINT=DESCRIPTIVE ETASQ HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=VisualPrimitives Magnitude VisualPrimitives*Magnitude.
Resources	Processor Time	00 00:00:00.234
	Elapsed Time	00 00:00:00.188

[DataSet0]

Warnings

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

Within-Subjects Factors

Measure:MEASURE_1

VisualPrimitives	Magnitude	Dependent Variable
1	1	Angle_Higher
	2	Angle_Lower
2	1	Area_Higher
	2	Area_Lower
3	1	Length_Higher
	2	Length_Lower
4	1	Curve_Higher
	2	Curve_Lower
5	1	Position_Higher
	2	Position_Lower
6	1	Distance_Higher
	2	Distance_Lower
7	1	Texture_Higher
	2	Texture_Lower

Descriptive Statistics

	Mean	Std. Deviation	N
Angle_Higher	92.8097	8.71441	35
Angle_Lower	89.7343	8.90333	35
Area_Higher	87.7017	6.45531	35
Area_Lower	78.6171	13.30320	35
Length_Higher	96.2809	5.35164	35
Length_Lower	93.7877	3.81977	35
Curve_Higher	92.5937	2.92200	35
Curve_Lower	87.6417	8.90545	35
Position_Higher	97.5497	2.86370	35
Position_Lower	95.8531	3.58852	35
Distance_Higher	96.5834	2.03363	35
Distance_Lower	93.2874	4.58312	35
Texture_Higher	48.0223	22.94603	35
Texture_Lower	7.9623	15.16101	35

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df
VisualPrimitives	Pillai's Trace	.968	145.765[a]	6.000	29.000
	Wilks' Lambda	.032	145.765[a]	6.000	29.000
	Hotelling's Trace	30.158	145.765[a]	6.000	29.000
	Roy's Largest Root	30.158	145.765[a]	6.000	29.000
Magnitude	Pillai's Trace	.801	137.030[a]	1.000	34.000
	Wilks' Lambda	.199	137.030[a]	1.000	34.000
	Hotelling's Trace	4.030	137.030[a]	1.000	34.000
	Roy's Largest Root	4.030	137.030[a]	1.000	34.000
VisualPrimitives * Magnitude	Pillai's Trace	.831	23.792[a]	6.000	29.000
	Wilks' Lambda	.169	23.792[a]	6.000	29.000
	Hotelling's Trace	4.923	23.792[a]	6.000	29.000
	Roy's Largest Root	4.923	23.792[a]	6.000	29.000

Multivariate Tests[b]

Effect		Sig.	Partial Eta Squared
VisualPrimitives	Pillai's Trace	.000	.968
	Wilks' Lambda	.000	.968
	Hotelling's Trace	.000	.968
	Roy's Largest Root	.000	.968
Magnitude	Pillai's Trace	.000	.801
	Wilks' Lambda	.000	.801
	Hotelling's Trace	.000	.801
	Roy's Largest Root	.000	.801
VisualPrimitives * Magnitude	Pillai's Trace	.000	.831
	Wilks' Lambda	.000	.831
	Hotelling's Trace	.000	.831
	Roy's Largest Root	.000	.831

a. Exact statistic
b. Design: Intercept
Within Subjects Design: VisualPrimitives + Magnitude + VisualPrimitives * Magnitude

Mauchly's Test of Sphericity[b]

Measure:MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.
VisualPrimitives	.003	182.008	20	.000
Magnitude	1.000	.000	0	.
VisualPrimitives * Magnitude	.083	78.917	20	.000

Mauchly's Test of Sphericity[b]

Measure:MEASURE_1

Within Subjects Effect	Epsilon[a]		
	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
VisualPrimitives	.307	.324	.167
Magnitude	1.000	1.000	1.000
VisualPrimitives * Magnitude	.564	.634	.167

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. 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.
b. Design: Intercept
Within Subjects Design: VisualPrimitives + Magnitude + VisualPrimitives * Magnitude

Tests of Within-Subjects Effects

Measure:MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
VisualPrimitives	Sphericity Assumed	253365.918	6	42227.653	308.312
	Greenhouse-Geisser	253365.918	1.842	137543.325	308.312
	Huynh-Feldt	253365.918	1.943	130420.232	308.312
	Lower-bound	253365.918	1.000	253365.918	308.312
Error(VisualPrimitives)	Sphericity Assumed	27940.702	204	136.964	
	Greenhouse-Geisser	27940.702	62.631	446.118	
	Huynh-Feldt	27940.702	66.051	423.014	
	Lower-bound	27940.702	34.000	821.785	
Magnitude	Sphericity Assumed	10451.550	1	10451.550	137.030
	Greenhouse-Geisser	10451.550	1.000	10451.550	137.030
	Huynh-Feldt	10451.550	1.000	10451.550	137.030
	Lower-bound	10451.550	1.000	10451.550	137.030
Error(Magnitude)	Sphericity Assumed	2593.249	34	76.272	
	Greenhouse-Geisser	2593.249	34.000	76.272	
	Huynh-Feldt	2593.249	34.000	76.272	
	Lower-bound	2593.249	34.000	76.272	
VisualPrimitives * Magnitude	Sphericity Assumed	20020.698	6	3336.783	59.910
	Greenhouse-Geisser	20020.698	3.384	5915.597	59.910
	Huynh-Feldt	20020.698	3.804	5263.428	59.910
	Lower-bound	20020.698	1.000	20020.698	59.910
Error(Visual Primitives*Magnitude)	Sphericity Assumed	11362.058	204	55.696	
	Greenhouse-Geisser	11362.058	115.069	98.741	
	Huynh-Feldt	11362.058	129.327	87.855	
	Lower-bound	11362.058	34.000	334.178	

Tests of Within-Subjects Effects

Measure:MEASURE_1

Source		Sig.	Partial Eta Squared
VisualPrimitives	Sphericity Assumed	.000	.901
	Greenhouse-Geisser	.000	.901
	Huynh-Feldt	.000	.901
	Lower-bound	.000	.901
Magnitude	Sphericity Assumed	.000	.801
	Greenhouse-Geisser	.000	.801
	Huynh-Feldt	.000	.801
	Lower-bound	.000	.801
VisualPrimitives * Magnitude	Sphericity Assumed	.000	.638
	Greenhouse-Geisser	.000	.638
	Huynh-Feldt	.000	.638
	Lower-bound	.000	.638

Tests of Within-Subjects Contrasts

Measure:MEASURE_1

Source		Magnitude	Type III Sum of Squares	df	Mean Square
VisualPrimitives	Linear		67749.361	1	67749.361
	Quadratic		95969.069	1	95969.069
	Cubic		68674.629	1	68674.629
	Order 4		11122.762	1	11122.762
	Order 5		8678.162	1	8678.162
	Order 6		1171.934	1	1171.934
Error(VisualPrimitives)	Linear		11005.971	34	323.705
	Quadratic		5318.393	34	156.423
	Cubic		5263.800	34	154.818
	Order 4		3523.529	34	103.633
	Order 5		1084.617	34	31.901
	Order 6		1744.392	34	51.306
Magnitude		Linear	10451.550	1	10451.550
Error(Magnitude)		Linear	2593.249	34	76.272
VisualPrimitives * Magnitude	Linear	Linear	6073.760	1	6073.760
	Quadratic	Linear	6999.769	1	6999.769
	Cubic	Linear	5536.767	1	5536.767
	Order 4	Linear	667.534	1	667.534
	Order 5	Linear	656.978	1	656.978
	Order 6	Linear	85.890	1	85.890
Error(Visual Primitives*Magnitude)	Linear	Linear	3216.197	34	94.594
	Quadratic	Linear	2835.673	34	83.402
	Cubic	Linear	1954.288	34	57.479
	Order 4	Linear	1192.625	34	35.077
	Order 5	Linear	1047.344	34	30.804
	Order 6	Linear	1115.930	34	32.821

Tests of Within-Subjects Contrasts

Measure:MEASURE_1

Source		Magnitude	F	Sig.	Partial Eta Squared
VisualPrimitives	Linear		209.294	.000	.860
	Quadratic		613.522	.000	.947
	Cubic		443.584	.000	.929
	Order 4		107.328	.000	.759
	Order 5		272.038	.000	.889
	Order 6		22.842	.000	.402
Magnitude		Linear	137.030	.000	.801
VisualPrimitives * Magnitude	Linear	Linear	64.209	.000	.654
	Quadratic	Linear	83.928	.000	.712
	Cubic	Linear	96.327	.000	.739
	Order 4	Linear	19.030	.000	.359
	Order 5	Linear	21.328	.000	.385
	Order 6	Linear	2.617	.115	.071

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	3354872.029	1	3354872.029	44558.046	.000	.999
Error	2559.934	34	75.292			

Estimated Marginal Means

1. VisualPrimitives

Estimates

Measure:MEASURE_1

VisualPrimitives	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	91.272	1.181	88.872	93.672
2	83.159	1.336	80.445	85.874
3	95.034	.589	93.837	96.232
4	90.118	.800	88.492	91.744
5	96.701	.394	95.902	97.501
6	94.935	.435	94.052	95.819
7	27.992	2.882	22.136	33.849

Pairwise Comparisons

Measure:MEASURE_1

(I) VisualPrimitives	(J) VisualPrimitives	Mean Difference (I-J)	Std. Error	Sig.[a]
1	2	8.113*	1.763	.001
	3	-3.762	1.392	.224
	4	1.154	1.342	1.000
	5	-5.429*	1.128	.001
	6	-3.663	1.248	.125
	7	63.280*	3.497	.000
2	1	-8.113*	1.763	.001
	3	-11.875*	1.555	.000
	4	-6.958*	1.278	.000
	5	-13.542*	1.469	.000
	6	-11.776*	1.387	.000
	7	55.167*	3.589	.000
3	1	3.762	1.392	.224
	2	11.875*	1.555	.000
	4	4.917*	1.017	.001
	5	-1.667	.658	.336
	6	.099	.782	1.000
	7	67.042*	2.871	.000
4	1	-1.154	1.342	1.000
	2	6.958*	1.278	.000
	3	-4.917*	1.017	.001
	5	-6.584*	.967	.000
	6	-4.818*	.966	.000
	7	62.125*	3.024	.000
5	1	5.429*	1.128	.001
	2	13.542*	1.469	.000
	3	1.667	.658	.336
	4	6.584*	.967	.000
	6	1.766	.582	.097
	7	68.709*	2.947	.000
6	1	3.663	1.248	.125
	2	11.776*	1.387	.000
	3	-.099	.782	1.000

Pairwise Comparisons

Measure:MEASURE_1

(I) VisualPrimitives	(J) VisualPrimitives	95% Confidence Interval for Difference[a]	
		Lower Bound	Upper Bound
1	2	2.325	13.900
	3	-8.332	.808
	4	-3.251	5.559
	5	-9.134	-1.725
	6	-7.762	.435
	7	51.799	74.761
2	1	-13.900	-2.325
	3	-16.979	-6.771
	4	-11.154	-2.762
	5	-18.366	-8.718
	6	-16.329	-7.223
	7	43.383	66.951
3	1	-.808	8.332
	2	6.771	16.979
	4	1.578	8.256
	5	-3.826	.492
	6	-2.468	2.666
	7	57.615	76.469
4	1	-5.559	3.251
	2	2.762	11.154
	3	-8.256	-1.578
	5	-9.760	-3.407
	6	-7.988	-1.647
	7	52.198	72.053
5	1	1.725	9.134
	2	8.718	18.366
	3	-.492	3.826
	4	3.407	9.760
	6	-.145	3.677
	7	59.034	78.384
6	1	-.435	7.762
	2	7.223	16.329
	3	-2.666	2.468

Pairwise Comparisons

Measure:MEASURE_1

(I) VisualPrimitives	(J) VisualPrimitives	Mean Difference (I-J)	Std. Error	Sig.[a]
6	4	4.818*	.966	.000
	5	-1.766	.582	.097
	7	66.943*	2.984	.000
7	1	-63.280*	3.497	.000
	2	-55.167*	3.589	.000
	3	-67.042*	2.871	.000
	4	-62.125*	3.024	.000
	5	-68.709*	2.947	.000
	6	-66.943*	2.984	.000

Pairwise Comparisons

Measure:MEASURE_1

		95% Confidence Interval for Difference[a]	
(I) VisualPrimitives	(J) VisualPrimitives	Lower Bound	Upper Bound
6	4	1.647	7.988
	5	-3.677	.145
	7	57.147	76.740
7	1	-74.761	-51.799
	2	-66.951	-43.383
	3	-76.469	-57.615
	4	-72.053	-52.198
	5	-78.384	-59.034
	6	-76.740	-57.147

Based on estimated marginal means

*. The mean difference is significant at the .05 level.
a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.968	145.765[a]	6.000	29.000	.000	.968
Wilks' lambda	.032	145.765[a]	6.000	29.000	.000	.968
Hotelling's trace	30.158	145.765[a]	6.000	29.000	.000	.968
Roy's largest root	30.158	145.765[a]	6.000	29.000	.000	.968

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

a. Exact statistic

2. Magnitude

Estimates

Measure:MEASURE_1

Magnitude	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	87.363	.635	86.072	88.654
2	78.126	.463	77.184	79.068

Pairwise Comparisons

Measure:MEASURE_1

(I) Magnitude	(J) Magnitude	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	9.237*	.789	.000	7.633	10.840
2	1	-9.237*	.789	.000	-10.840	-7.633

Based on estimated marginal means

*. The mean difference is significant at the .05 level.
a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.801	137.030[a]	1.000	34.000	.000	.801
Wilks' lambda	.199	137.030[a]	1.000	34.000	.000	.801
Hotelling's trace	4.030	137.030[a]	1.000	34.000	.000	.801
Roy's largest root	4.030	137.030[a]	1.000	34.000	.000	.801

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

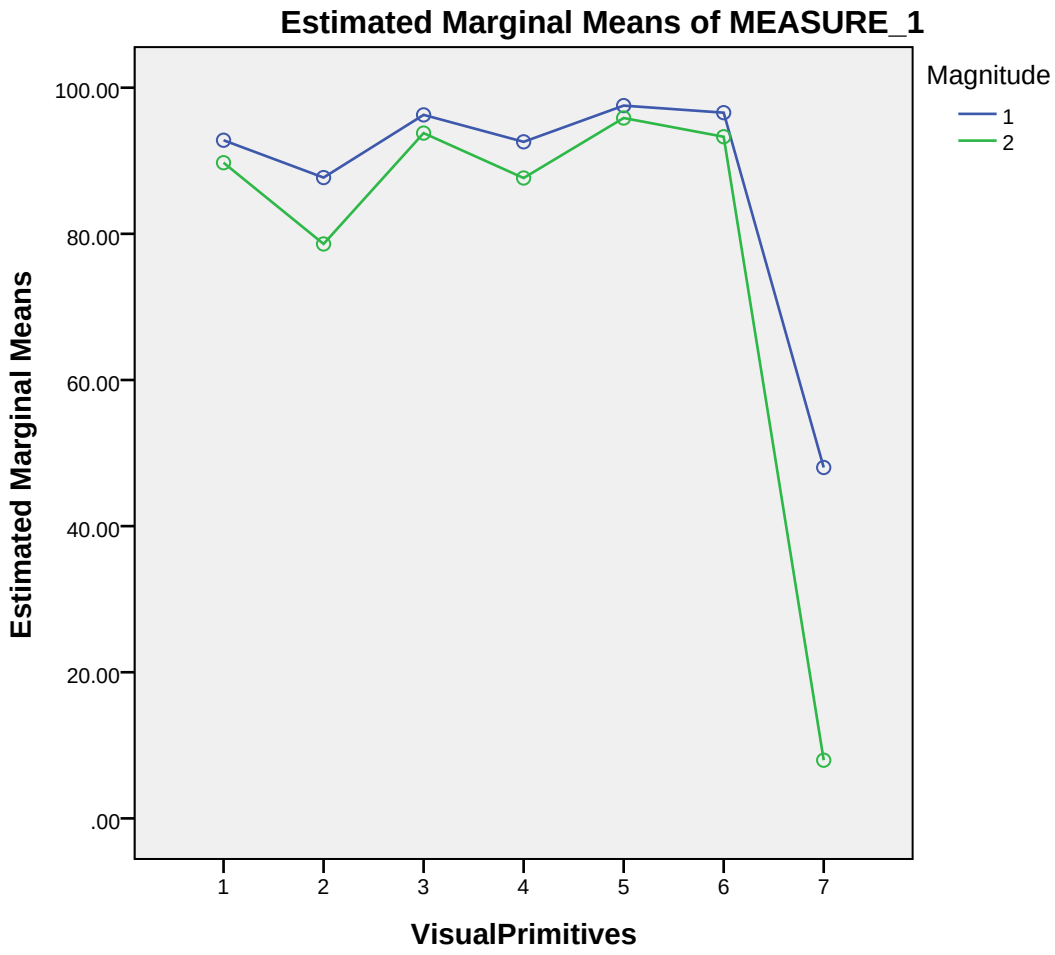
a. Exact statistic

3. VisualPrimitives * Magnitude

Measure:MEASURE_1

VisualPrimitives	Magnitude	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	92.810	1.473	89.816	95.803
	2	89.734	1.505	86.676	92.793
2	1	87.702	1.091	85.484	89.919
	2	78.617	2.249	74.047	83.187
3	1	96.281	.905	94.443	98.119
	2	93.788	.646	92.476	95.100
4	1	92.594	.494	91.590	93.597
	2	87.642	1.505	84.583	90.701
5	1	97.550	.484	96.566	98.533
	2	95.853	.607	94.620	97.086
6	1	96.583	.344	95.885	97.282
	2	93.287	.775	91.713	94.862
7	1	48.022	3.879	40.140	55.905
	2	7.962	2.563	2.754	13.170

Profile Plots


Estimated Marginal Means of MEASURE_1
Magnitude
1
2
100.00
80.00
60.00
40.00
20.00
.00
Estimated Marginal Means
1
2
3
4
5
6
7
VisualPrimitives