

## General Linear Model

### Notes

Output Created		12-JAN-2023 15:36:38
Comments		
Input	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	190
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 b0 b10 b20 b30 b40 b50 b60 b70 b80 b90 b100 f0 f10 f20 f30 f40 f50 f60 f70 f80 f90 f100 s0 s10 s20 s30 s40 s50 s60 s70 s80 s90 s100 u0 u10 u20 u30 u40 u50 u60 u70 u80 u90 u100 BY Encoding Experiment /WSFACTOR=Direction 4 Polynomial Bin 11 Polynomial /METHOD=SSTYPE(3) /PRINT=ETASQ /CRITERIA=ALPHA(.05) /WSDESIGN=Direction Bin Direction*Bin /DESIGN=Encoding Experiment Encoding*Experiment.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

## Within-Subjects Factors

Measure: MEASURE\_1

Direction	Bin	Dependent Variable
1	1	b0
	2	b10
	3	b20
	4	b30
	5	b40
	6	b50
	7	b60
	8	b70
	9	b80
	10	b90
	11	b100
2	1	f0
	2	f10
	3	f20
	4	f30
	5	f40
	6	f50
	7	f60
	8	f70
	9	f80
	10	f90
	11	f100
3	1	s0
	2	s10
	3	s20
	4	s30
	5	s40
	6	s50
	7	s60
	8	s70
	9	s80
	10	s90
	11	s100

### Within-Subjects Factors

Measure: MEASURE\_1

Direction	Bin	Dependent Variable
4	1	u0
	2	u10
	3	u20
	4	u30
	5	u40
	6	u50
	7	u60
	8	u70
	9	u80
	10	u90
	11	u100

### Between-Subjects Factors

N		
Encoding	IS	62
	READ	63
	RL	63
Experiment		101
	1	87

### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df
Direction	Pillai's Trace	.674	123.816 <sup>b</sup>	3.000	180.000
	Wilks' Lambda	.326	123.816 <sup>b</sup>	3.000	180.000
	Hotelling's Trace	2.064	123.816 <sup>b</sup>	3.000	180.000
	Roy's Largest Root	2.064	123.816 <sup>b</sup>	3.000	180.000
Direction * Encoding	Pillai's Trace	.296	10.464	6.000	362.000
	Wilks' Lambda	.705	11.450 <sup>b</sup>	6.000	360.000
	Hotelling's Trace	.417	12.439	6.000	358.000
	Roy's Largest Root	.414	24.994 <sup>c</sup>	3.000	181.000
Direction * Experiment	Pillai's Trace	.055	3.482 <sup>b</sup>	3.000	180.000
	Wilks' Lambda	.945	3.482 <sup>b</sup>	3.000	180.000
	Hotelling's Trace	.058	3.482 <sup>b</sup>	3.000	180.000
	Roy's Largest Root	.058	3.482 <sup>b</sup>	3.000	180.000
Direction * Encoding * Experiment	Pillai's Trace	.025	.765	6.000	362.000
	Wilks' Lambda	.975	.765 <sup>b</sup>	6.000	360.000
	Hotelling's Trace	.026	.764	6.000	358.000
	Roy's Largest Root	.024	1.464 <sup>c</sup>	3.000	181.000
Bin	Pillai's Trace	.693	38.989 <sup>b</sup>	10.000	173.000
	Wilks' Lambda	.307	38.989 <sup>b</sup>	10.000	173.000
	Hotelling's Trace	2.254	38.989 <sup>b</sup>	10.000	173.000
	Roy's Largest Root	2.254	38.989 <sup>b</sup>	10.000	173.000
Bin * Encoding	Pillai's Trace	.118	1.090	20.000	348.000
	Wilks' Lambda	.885	1.090 <sup>b</sup>	20.000	346.000
	Hotelling's Trace	.127	1.090	20.000	344.000
	Roy's Largest Root	.091	1.591 <sup>c</sup>	10.000	174.000
Bin * Experiment	Pillai's Trace	.114	2.234 <sup>b</sup>	10.000	173.000
	Wilks' Lambda	.886	2.234 <sup>b</sup>	10.000	173.000
	Hotelling's Trace	.129	2.234 <sup>b</sup>	10.000	173.000
	Roy's Largest Root	.129	2.234 <sup>b</sup>	10.000	173.000
Bin * Encoding * Experiment	Pillai's Trace	.100	.914	20.000	348.000
	Wilks' Lambda	.903	.909 <sup>b</sup>	20.000	346.000
	Hotelling's Trace	.105	.904	20.000	344.000
	Roy's Largest Root	.060	1.041 <sup>c</sup>	10.000	174.000

### Multivariate Tests<sup>a</sup>

Effect		Sig.	Partial Eta Squared
Direction	Pillai's Trace	<.001	.674
	Wilks' Lambda	<.001	.674
	Hotelling's Trace	<.001	.674
	Roy's Largest Root	<.001	.674
Direction * Encoding	Pillai's Trace	<.001	.148
	Wilks' Lambda	<.001	.160
	Hotelling's Trace	<.001	.173
	Roy's Largest Root	<.001	.293
Direction * Experiment	Pillai's Trace	.017	.055
	Wilks' Lambda	.017	.055
	Hotelling's Trace	.017	.055
	Roy's Largest Root	.017	.055
Direction * Encoding * Experiment	Pillai's Trace	.598	.013
	Wilks' Lambda	.598	.013
	Hotelling's Trace	.598	.013
	Roy's Largest Root	.226	.024
Bin	Pillai's Trace	<.001	.693
	Wilks' Lambda	<.001	.693
	Hotelling's Trace	<.001	.693
	Roy's Largest Root	<.001	.693
Bin * Encoding	Pillai's Trace	.358	.059
	Wilks' Lambda	.358	.059
	Hotelling's Trace	.358	.060
	Roy's Largest Root	.113	.084
Bin * Experiment	Pillai's Trace	.018	.114
	Wilks' Lambda	.018	.114
	Hotelling's Trace	.018	.114
	Roy's Largest Root	.018	.114
Bin * Encoding * Experiment	Pillai's Trace	.570	.050
	Wilks' Lambda	.576	.050
	Hotelling's Trace	.582	.050
	Roy's Largest Root	.412	.056

### Multivariate Tests<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df
Direction * Bin	Pillai's Trace	.652	9.566 <sup>b</sup>	30.000	153.000
	Wilks' Lambda	.348	9.566 <sup>b</sup>	30.000	153.000
	Hotelling's Trace	1.876	9.566 <sup>b</sup>	30.000	153.000
	Roy's Largest Root	1.876	9.566 <sup>b</sup>	30.000	153.000
Direction * Bin * Encoding	Pillai's Trace	.412	1.331	60.000	308.000
	Wilks' Lambda	.630	1.325 <sup>b</sup>	60.000	306.000
	Hotelling's Trace	.520	1.318	60.000	304.000
	Roy's Largest Root	.295	1.514 <sup>c</sup>	30.000	154.000
Direction * Bin * Experiment	Pillai's Trace	.102	.581 <sup>b</sup>	30.000	153.000
	Wilks' Lambda	.898	.581 <sup>b</sup>	30.000	153.000
	Hotelling's Trace	.114	.581 <sup>b</sup>	30.000	153.000
	Roy's Largest Root	.114	.581 <sup>b</sup>	30.000	153.000
Direction * Bin * Encoding * Experiment	Pillai's Trace	.257	.757	60.000	308.000
	Wilks' Lambda	.759	.753 <sup>b</sup>	60.000	306.000
	Hotelling's Trace	.295	.748	60.000	304.000
	Roy's Largest Root	.162	.832 <sup>c</sup>	30.000	154.000

### Multivariate Tests<sup>a</sup>

Effect		Sig.	Partial Eta Squared
Direction * Bin	Pillai's Trace	<.001	.652
	Wilks' Lambda	<.001	.652
	Hotelling's Trace	<.001	.652
	Roy's Largest Root	<.001	.652
Direction * Bin * Encoding	Pillai's Trace	.064	.206
	Wilks' Lambda	.068	.206
	Hotelling's Trace	.071	.206
	Roy's Largest Root	.055	.228
Direction * Bin * Experiment	Pillai's Trace	.959	.102
	Wilks' Lambda	.959	.102
	Hotelling's Trace	.959	.102
	Roy's Largest Root	.959	.102
Direction * Bin * Encoding * Experiment	Pillai's Trace	.904	.129
	Wilks' Lambda	.908	.129
	Hotelling's Trace	.913	.129
	Roy's Largest Root	.716	.140

a. Design: Intercept + Encoding + Experiment + Encoding \* Experiment  
Within Subjects Design: Direction + Bin + Direction \* Bin

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

### Mauchly's Test of Sphericity<sup>a</sup>

Measure: MEASURE\_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon <sup>b</sup> Greenhouse-Geisser
Direction	.859	27.545	5	<.001	.900
Bin	.074	464.851	54	<.001	.600
Direction * Bin	.039	555.652	464	.002	.829

### Mauchly's Test of Sphericity<sup>a</sup>

Measure: MEASURE\_1

Within Subjects Effect	Epsilon <sup>b</sup>	
	Huynh-Feldt	Lower-bound
Direction	.940	.333
Bin	.640	.100
Direction * Bin	.992	.033

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

- Design: Intercept + Encoding + Experiment + Encoding \* Experiment  
Within Subjects Design: Direction + Bin + Direction \* Bin
- 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
Direction	Sphericity Assumed	877198.339	3	292399.446
	Greenhouse-Geisser	877198.339	2.701	324739.708
	Huynh-Feldt	877198.339	2.821	310934.282
	Lower-bound	877198.339	1.000	877198.339
Direction * Encoding	Sphericity Assumed	126592.647	6	21098.774
	Greenhouse-Geisser	126592.647	5.402	23432.363
	Huynh-Feldt	126592.647	5.642	22436.199
	Lower-bound	126592.647	2.000	63296.323
Direction * Experiment	Sphericity Assumed	22510.654	3	7503.551
	Greenhouse-Geisser	22510.654	2.701	8333.467
	Huynh-Feldt	22510.654	2.821	7979.192
	Lower-bound	22510.654	1.000	22510.654
Direction * Encoding * Experiment	Sphericity Assumed	8640.755	6	1440.126
	Greenhouse-Geisser	8640.755	5.402	1599.408
	Huynh-Feldt	8640.755	5.642	1531.414
	Lower-bound	8640.755	2.000	4320.378
Error(Direction)	Sphericity Assumed	895639.750	546	1640.366
	Greenhouse-Geisser	895639.750	491.625	1821.795
	Huynh-Feldt	895639.750	513.453	1744.347
	Lower-bound	895639.750	182.000	4921.098
Bin	Sphericity Assumed	1148385.889	10	114838.589
	Greenhouse-Geisser	1148385.889	6.000	191382.814
	Huynh-Feldt	1148385.889	6.398	179484.627
	Lower-bound	1148385.889	1.000	1148385.889
Bin * Encoding	Sphericity Assumed	71838.257	20	3591.913
	Greenhouse-Geisser	71838.257	12.001	5986.057
	Huynh-Feldt	71838.257	12.796	5613.907
	Lower-bound	71838.257	2.000	35919.128
Bin * Experiment	Sphericity Assumed	32798.510	10	3279.851
	Greenhouse-Geisser	32798.510	6.000	5465.995
	Huynh-Feldt	32798.510	6.398	5126.176
	Lower-bound	32798.510	1.000	32798.510
Bin * Encoding * Experiment	Sphericity Assumed	44149.117	20	2207.456
	Greenhouse-Geisser	44149.117	12.001	3678.808

## Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		F	Sig.	Partial Eta Squared
Direction	Sphericity Assumed	178.253	<.001	.495
	Greenhouse-Geisser	178.253	<.001	.495
	Huynh-Feldt	178.253	<.001	.495
	Lower-bound	178.253	<.001	.495
Direction * Encoding	Sphericity Assumed	12.862	<.001	.124
	Greenhouse-Geisser	12.862	<.001	.124
	Huynh-Feldt	12.862	<.001	.124
	Lower-bound	12.862	<.001	.124
Direction * Experiment	Sphericity Assumed	4.574	.004	.025
	Greenhouse-Geisser	4.574	.005	.025
	Huynh-Feldt	4.574	.004	.025
	Lower-bound	4.574	.034	.025
Direction * Encoding * Experiment	Sphericity Assumed	.878	.511	.010
	Greenhouse-Geisser	.878	.502	.010
	Huynh-Feldt	.878	.506	.010
	Lower-bound	.878	.417	.010
Error(Direction)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Bin	Sphericity Assumed	59.018	<.001	.245
	Greenhouse-Geisser	59.018	<.001	.245
	Huynh-Feldt	59.018	<.001	.245
	Lower-bound	59.018	<.001	.245
Bin * Encoding	Sphericity Assumed	1.846	.013	.020
	Greenhouse-Geisser	1.846	.037	.020
	Huynh-Feldt	1.846	.033	.020
	Lower-bound	1.846	.161	.020
Bin * Experiment	Sphericity Assumed	1.686	.079	.009
	Greenhouse-Geisser	1.686	.121	.009
	Huynh-Feldt	1.686	.116	.009
	Lower-bound	1.686	.196	.009
Bin * Encoding * Experiment	Sphericity Assumed	1.134	.306	.012
	Greenhouse-Geisser	1.134	.328	.012

## Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square
	Huynh-Feldt	44149.117	12.796	3450.098
	Lower-bound	44149.117	2.000	22074.558
Error(Bin)	Sphericity Assumed	3541410.955	1820	1945.830
	Greenhouse-Geisser	3541410.955	1092.085	3242.799
	Huynh-Feldt	3541410.955	1164.480	3041.196
	Lower-bound	3541410.955	182.000	19458.302
Direction * Bin	Sphericity Assumed	430457.425	30	14348.581
	Greenhouse-Geisser	430457.425	24.873	17305.989
	Huynh-Feldt	430457.425	29.748	14470.192
	Lower-bound	430457.425	1.000	430457.425
Direction * Bin * Encoding	Sphericity Assumed	78490.043	60	1308.167
	Greenhouse-Geisser	78490.043	49.747	1577.796
	Huynh-Feldt	78490.043	59.496	1319.255
	Lower-bound	78490.043	2.000	39245.021
Direction * Bin * Experiment	Sphericity Assumed	18864.845	30	628.828
	Greenhouse-Geisser	18864.845	24.873	758.437
	Huynh-Feldt	18864.845	29.748	634.158
	Lower-bound	18864.845	1.000	18864.845
Direction * Bin * Encoding * Experiment	Sphericity Assumed	43165.854	60	719.431
	Greenhouse-Geisser	43165.854	49.747	867.714
	Huynh-Feldt	43165.854	59.496	725.528
	Lower-bound	43165.854	2.000	21582.927
Error(Direction*Bin)	Sphericity Assumed	5358173.273	5460	981.350
	Greenhouse-Geisser	5358173.273	4526.944	1183.618
	Huynh-Feldt	5358173.273	5414.113	989.668
	Lower-bound	5358173.273	182.000	29440.512

## Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		F	Sig.	Partial Eta Squared
	Huynh-Feldt	1.134	.325	.012
	Lower-bound	1.134	.324	.012
Error(Bin)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			
Direction * Bin	Sphericity Assumed	14.621	<.001	.074
	Greenhouse-Geisser	14.621	<.001	.074
	Huynh-Feldt	14.621	<.001	.074
	Lower-bound	14.621	<.001	.074
Direction * Bin * Encoding	Sphericity Assumed	1.333	.044	.014
	Greenhouse-Geisser	1.333	.059	.014
	Huynh-Feldt	1.333	.045	.014
	Lower-bound	1.333	.266	.014
Direction * Bin * Experiment	Sphericity Assumed	.641	.935	.004
	Greenhouse-Geisser	.641	.913	.004
	Huynh-Feldt	.641	.934	.004
	Lower-bound	.641	.424	.004
Direction * Bin * Encoding * Experiment	Sphericity Assumed	.733	.939	.008
	Greenhouse-Geisser	.733	.919	.008
	Huynh-Feldt	.733	.938	.008
	Lower-bound	.733	.482	.008
Error(Direction*Bin)	Sphericity Assumed			
	Greenhouse-Geisser			
	Huynh-Feldt			
	Lower-bound			

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	Type III Sum of Squares	df	Mean Square
Direction	Linear		189939.592	1	189939.592
	Quadratic		685966.960	1	685966.960
	Cubic		1291.787	1	1291.787
Direction * Encoding	Linear		79642.656	2	39821.328
	Quadratic		24784.219	2	12392.109
	Cubic		22165.772	2	11082.886
Direction * Experiment	Linear		2.342	1	2.342
	Quadratic		21947.802	1	21947.802
	Cubic		560.509	1	560.509
Direction * Encoding * Experiment	Linear		1765.549	2	882.775
	Quadratic		5111.336	2	2555.668
	Cubic		1763.870	2	881.935
Error(Direction)	Linear		244705.453	182	1344.535
	Quadratic		404305.054	182	2221.456
	Cubic		246629.243	182	1355.106
Bin	Linear		893094.169	1	893094.169
	Quadratic		174159.303	1	174159.303
	Cubic		68267.843	1	68267.843
	Order 4		3004.673	1	3004.673
	Order 5		545.573	1	545.573
	Order 6		1265.841	1	1265.841
	Order 7		1780.914	1	1780.914
	Order 8		4175.692	1	4175.692
	Order 9		7.708	1	7.708
	Order 10		2084.173	1	2084.173
Bin * Encoding	Linear		25060.233	2	12530.117
	Quadratic		29108.282	2	14554.141

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	F	Sig.	Partial Eta Squared
Direction	Linear		141.268	<.001	.437
	Quadratic		308.792	<.001	.629
	Cubic		.953	.330	.005
Direction * Encoding	Linear		29.617	<.001	.246
	Quadratic		5.578	.004	.058
	Cubic		8.179	<.001	.082
Direction * Experiment	Linear		.002	.967	.000
	Quadratic		9.880	.002	.051
	Cubic		.414	.521	.002
Direction * Encoding * Experiment	Linear		.657	.520	.007
	Quadratic		1.150	.319	.012
	Cubic		.651	.523	.007
Error(Direction)	Linear				
	Quadratic				
	Cubic				
Bin	Linear		241.178	<.001	.570
	Quadratic		35.679	<.001	.164
	Cubic		26.563	<.001	.127
	Order 4		1.543	.216	.008
	Order 5		.559	.456	.003
	Order 6		1.233	.268	.007
	Order 7		1.840	.177	.010
	Order 8		4.117	.044	.022
	Order 9		.007	.933	.000
	Order 10		1.603	.207	.009
Bin * Encoding	Linear		3.384	.036	.036
	Quadratic		2.982	.053	.032

## Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	Type III Sum of Squares	df	Mean Square
		Cubic	9459.919	2	4729.960
		Order 4	1845.581	2	922.791
		Order 5	425.083	2	212.542
		Order 6	1184.832	2	592.416
		Order 7	1387.897	2	693.949
		Order 8	1138.804	2	569.402
		Order 9	1471.179	2	735.589
		Order 10	756.445	2	378.223
Bin * Experiment		Linear	575.013	1	575.013
		Quadratic	16282.581	1	16282.581
		Cubic	.075	1	.075
		Order 4	1705.696	1	1705.696
		Order 5	215.309	1	215.309
		Order 6	139.770	1	139.770
		Order 7	135.655	1	135.655
		Order 8	2592.219	1	2592.219
		Order 9	1761.530	1	1761.530
		Order 10	9390.662	1	9390.662
Bin * Encoding * Experiment		Linear	10142.788	2	5071.394
		Quadratic	11837.316	2	5918.658
		Cubic	8502.795	2	4251.398
		Order 4	269.173	2	134.586
		Order 5	296.080	2	148.040
		Order 6	1185.900	2	592.950
		Order 7	987.740	2	493.870
		Order 8	5032.036	2	2516.018
		Order 9	5365.630	2	2682.815
		Order 10	529.660	2	264.830
Error(Bin)		Linear	673955.862	182	3703.054
		Quadratic	888394.190	182	4881.287
		Cubic	467738.330	182	2569.991
		Order 4	354472.727	182	1947.652
		Order 5	177673.510	182	976.228
		Order 6	186814.736	182	1026.455

## Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	F	Sig.	Partial Eta Squared
		Cubic	1.840	.162	.020
		Order 4	.474	.623	.005
		Order 5	.218	.805	.002
		Order 6	.577	.563	.006
		Order 7	.717	.490	.008
		Order 8	.561	.571	.006
		Order 9	.686	.505	.007
		Order 10	.291	.748	.003
Bin * Experiment		Linear	.155	.694	.001
		Quadratic	3.336	.069	.018
		Cubic	.000	.996	.000
		Order 4	.876	.351	.005
		Order 5	.221	.639	.001
		Order 6	.136	.713	.001
		Order 7	.140	.709	.001
		Order 8	2.556	.112	.014
		Order 9	1.643	.201	.009
		Order 10	7.225	.008	.038
Bin * Encoding * Experiment		Linear	1.370	.257	.015
		Quadratic	1.213	.300	.013
		Cubic	1.654	.194	.018
		Order 4	.069	.933	.001
		Order 5	.152	.859	.002
		Order 6	.578	.562	.006
		Order 7	.510	.601	.006
		Order 8	2.481	.087	.027
		Order 9	2.503	.085	.027
		Order 10	.204	.816	.002
Error(Bin)		Linear			
		Quadratic			
		Cubic			
		Order 4			
		Order 5			
		Order 6			



## Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	Type III Sum of Squares	df	Mean Square
		Order 7	176132.966	182	967.764
		Order 8	184585.564	182	1014.206
		Order 9	195085.731	182	1071.900
		Order 10	236557.339	182	1299.766
Direction * Bin	Linear	Linear	102314.061	1	102314.061
		Quadratic	50.921	1	50.921
		Cubic	6150.766	1	6150.766
		Order 4	1517.115	1	1517.115
		Order 5	998.975	1	998.975
		Order 6	1382.096	1	1382.096
		Order 7	11.889	1	11.889
		Order 8	264.621	1	264.621
		Order 9	4.924	1	4.924
		Order 10	1728.445	1	1728.445
	Quadratic	Linear	249216.810	1	249216.810
		Quadratic	75.083	1	75.083
		Cubic	12113.637	1	12113.637
		Order 4	2055.041	1	2055.041
		Order 5	332.865	1	332.865
		Order 6	7217.930	1	7217.930
		Order 7	91.880	1	91.880
		Order 8	255.372	1	255.372
		Order 9	1391.215	1	1391.215
		Order 10	467.056	1	467.056
	Cubic	Linear	15479.803	1	15479.803
		Quadratic	15339.048	1	15339.048
		Cubic	1457.488	1	1457.488
		Order 4	931.162	1	931.162
		Order 5	3508.672	1	3508.672
		Order 6	584.174	1	584.174
		Order 7	2040.426	1	2040.426
		Order 8	36.756	1	36.756
		Order 9	3399.538	1	3399.538
		Order 10	39.657	1	39.657

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	F	Sig.	Partial Eta Squared
		Order 7			
		Order 8			
		Order 9			
		Order 10			
Direction * Bin	Linear	Linear	78.705	<.001	.302
		Quadratic	.041	.840	.000
		Cubic	6.565	.011	.035
		Order 4	1.488	.224	.008
		Order 5	1.346	.247	.007
		Order 6	1.588	.209	.009
		Order 7	.016	.900	.000
		Order 8	.389	.534	.002
		Order 9	.005	.942	.000
		Order 10	1.793	.182	.010
	Quadratic	Linear	199.585	<.001	.523
		Quadratic	.054	.817	.000
		Cubic	11.936	<.001	.062
		Order 4	2.490	.116	.013
		Order 5	.369	.544	.002
		Order 6	7.364	.007	.039
		Order 7	.112	.739	.001
		Order 8	.285	.594	.002
		Order 9	1.610	.206	.009
		Order 10	.432	.512	.002
	Cubic	Linear	14.672	<.001	.075
		Quadratic	16.289	<.001	.082
		Cubic	1.645	.201	.009
		Order 4	.942	.333	.005
		Order 5	3.242	.073	.018
		Order 6	.753	.387	.004
		Order 7	1.659	.199	.009
		Order 8	.036	.849	.000
		Order 9	3.469	.064	.019
		Order 10	.039	.843	.000

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	Type III Sum of Squares	df	Mean Square
Direction * Bin * Encoding	Linear	Linear	2708.208	2	1354.104
		Quadratic	5363.155	2	2681.578
		Cubic	7699.633	2	3849.817
		Order 4	2343.540	2	1171.770
		Order 5	6113.765	2	3056.882
		Order 6	3828.195	2	1914.097
		Order 7	225.446	2	112.723
		Order 8	1385.265	2	692.633
		Order 9	438.368	2	219.184
		Order 10	3004.207	2	1502.103
	Quadratic	Linear	1457.626	2	728.813
		Quadratic	6561.379	2	3280.690
		Cubic	4364.098	2	2182.049
		Order 4	15.753	2	7.877
		Order 5	1322.334	2	661.167
		Order 6	701.834	2	350.917
		Order 7	2091.732	2	1045.866
		Order 8	211.508	2	105.754
		Order 9	1059.059	2	529.530
		Order 10	554.683	2	277.342
	Cubic	Linear	1244.904	2	622.452
		Quadratic	2368.390	2	1184.195
		Cubic	4345.077	2	2172.539
		Order 4	574.807	2	287.403
		Order 5	2583.096	2	1291.548
		Order 6	3104.092	2	1552.046
		Order 7	4951.818	2	2475.909
		Order 8	490.592	2	245.296
		Order 9	2537.572	2	1268.786
		Order 10	4839.908	2	2419.954
Direction * Bin * Experiment	Linear	Linear	228.704	1	228.704
		Quadratic	840.024	1	840.024
		Cubic	223.780	1	223.780
		Order 4	121.790	1	121.790

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	F	Sig.	Partial Eta Squared
Direction * Bin * Encoding	Linear	Linear	1.042	.355	.011
		Quadratic	2.141	.121	.023
		Cubic	4.109	.018	.043
		Order 4	1.149	.319	.012
		Order 5	4.119	.018	.043
		Order 6	2.200	.114	.024
		Order 7	.150	.861	.002
		Order 8	1.017	.364	.011
		Order 9	.237	.789	.003
		Order 10	1.558	.213	.017
	Quadratic	Linear	.584	.559	.006
		Quadratic	2.348	.098	.025
		Cubic	2.150	.119	.023
		Order 4	.010	.991	.000
		Order 5	.733	.482	.008
		Order 6	.358	.700	.004
		Order 7	1.271	.283	.014
		Order 8	.118	.889	.001
		Order 9	.613	.543	.007
		Order 10	.257	.774	.003
	Cubic	Linear	.590	.555	.006
		Quadratic	1.258	.287	.014
		Cubic	2.452	.089	.026
		Order 4	.291	.748	.003
		Order 5	1.194	.306	.013
		Order 6	2.000	.138	.022
		Order 7	2.013	.137	.022
		Order 8	.242	.786	.003
		Order 9	1.295	.276	.014
		Order 10	2.391	.094	.026
Direction * Bin * Experiment	Linear	Linear	.176	.675	.001
		Quadratic	.671	.414	.004
		Cubic	.239	.626	.001
		Order 4	.119	.730	.001

## Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	Type III Sum of Squares	df	Mean Square
		Order 5	98.720	1	98.720
		Order 6	172.216	1	172.216
		Order 7	645.363	1	645.363
		Order 8	2675.792	1	2675.792
		Order 9	334.258	1	334.258
		Order 10	7.584	1	7.584
		Quadratic	712.440	1	712.440
		Quadratic	1628.886	1	1628.886
		Cubic	109.738	1	109.738
		Order 4	16.991	1	16.991
		Order 5	423.406	1	423.406
		Order 6	28.908	1	28.908
		Order 7	355.895	1	355.895
		Order 8	1026.376	1	1026.376
		Order 9	16.211	1	16.211
		Order 10	386.198	1	386.198
	Cubic	Linear	4040.554	1	4040.554
		Quadratic	1201.639	1	1201.639
		Cubic	626.080	1	626.080
		Order 4	559.874	1	559.874
		Order 5	1382.994	1	1382.994
		Order 6	411.405	1	411.405
		Order 7	49.545	1	49.545
		Order 8	457.947	1	457.947
		Order 9	73.123	1	73.123
		Order 10	8.402	1	8.402
Direction * Bin * Encoding * Experiment	Linear	Linear	2054.505	2	1027.253
		Quadratic	463.700	2	231.850
		Cubic	4276.399	2	2138.199
		Order 4	1910.696	2	955.348
		Order 5	1914.137	2	957.068
		Order 6	411.637	2	205.818
		Order 7	281.333	2	140.667
		Order 8	2181.106	2	1090.553

## Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	F	Sig.	Partial Eta Squared
		Order 5	.133	.716	.001
		Order 6	.198	.657	.001
		Order 7	.858	.355	.005
		Order 8	3.929	.049	.021
		Order 9	.362	.548	.002
		Order 10	.008	.929	.000
	Quadratic	Linear	.571	.451	.003
		Quadratic	1.166	.282	.006
		Cubic	.108	.743	.001
		Order 4	.021	.886	.000
		Order 5	.470	.494	.003
		Order 6	.029	.864	.000
		Order 7	.432	.512	.002
		Order 8	1.144	.286	.006
		Order 9	.019	.891	.000
		Order 10	.358	.551	.002
	Cubic	Linear	3.830	.052	.021
		Quadratic	1.276	.260	.007
		Cubic	.707	.402	.004
		Order 4	.567	.453	.003
		Order 5	1.278	.260	.007
		Order 6	.530	.467	.003
		Order 7	.040	.841	.000
		Order 8	.451	.503	.002
		Order 9	.075	.785	.000
		Order 10	.008	.928	.000
Direction * Bin * Encoding * Experiment	Linear	Linear	.790	.455	.009
		Quadratic	.185	.831	.002
		Cubic	2.282	.105	.024
		Order 4	.937	.394	.010
		Order 5	1.290	.278	.014
		Order 6	.237	.790	.003
		Order 7	.187	.830	.002
		Order 8	1.601	.204	.017

## Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	Type III Sum of Squares	df	Mean Square
		Order 9	114.241	2	57.121
		Order 10	49.943	2	24.972
	Quadratic	Linear	650.608	2	325.304
		Quadratic	391.445	2	195.722
		Cubic	2.718	2	1.359
		Order 4	2538.416	2	1269.208
		Order 5	510.089	2	255.044
		Order 6	1304.793	2	652.396
		Order 7	4526.895	2	2263.447
		Order 8	112.841	2	56.420
		Order 9	303.971	2	151.985
		Order 10	965.756	2	482.878
	Cubic	Linear	826.207	2	413.103
		Quadratic	1812.886	2	906.443
		Cubic	1568.916	2	784.458
		Order 4	2759.110	2	1379.555
		Order 5	383.545	2	191.772
		Order 6	742.334	2	371.167
		Order 7	753.587	2	376.793
		Order 8	2923.629	2	1461.815
		Order 9	2094.211	2	1047.105
		Order 10	4336.203	2	2168.102
Error(Direction*Bin)	Linear	Linear	236594.171	182	1299.968
		Quadratic	227969.970	182	1252.582
		Cubic	170520.626	182	936.927
		Order 4	185540.362	182	1019.453
		Order 5	135065.547	182	742.118
		Order 6	158378.730	182	870.213
		Order 7	136875.717	182	752.064
		Order 8	123946.011	182	681.022
		Order 9	168136.646	182	923.828
		Order 10	175429.741	182	963.900
	Quadratic	Linear	227259.133	182	1248.677
		Quadratic	254330.361	182	1397.420

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	F	Sig.	Partial Eta Squared
	Quadratic	Order 9	.062	.940	.001
		Order 10	.026	.974	.000
		Linear	.261	.771	.003
		Quadratic	.140	.869	.002
		Cubic	.001	.999	.000
		Order 4	1.538	.218	.017
		Order 5	.283	.754	.003
		Order 6	.666	.515	.007
		Order 7	2.750	.067	.029
		Order 8	.063	.939	.001
	Cubic	Order 9	.176	.839	.002
		Order 10	.447	.640	.005
		Linear	.392	.677	.004
		Quadratic	.963	.384	.010
		Cubic	.885	.414	.010
		Order 4	1.396	.250	.015
		Order 5	.177	.838	.002
		Order 6	.478	.621	.005
		Order 7	.306	.736	.003
		Order 8	1.441	.239	.016
		Order 9	1.069	.346	.012
		Order 10	2.142	.120	.023
Error(Direction*Bin)	Linear	Linear			
		Quadratic			
		Cubic			
		Order 4			
		Order 5			
		Order 6			
		Order 7			
		Order 8			
		Order 9			
		Order 10			
	Quadratic	Linear			
		Quadratic			



### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	Type III Sum of Squares	df	Mean Square
		Cubic	184714.988	182	1014.918
		Order 4	150196.025	182	825.253
		Order 5	164101.540	182	901.657
		Order 6	178396.927	182	980.203
		Order 7	149804.819	182	823.103
		Order 8	163285.251	182	897.172
		Order 9	157304.572	182	864.311
		Order 10	196558.527	182	1079.992
	Cubic	Linear	192017.655	182	1055.042
		Quadratic	171383.915	182	941.670
		Cubic	161258.536	182	886.036
		Order 4	179856.815	182	988.224
		Order 5	196949.042	182	1082.138
		Order 6	141218.090	182	775.924
		Order 7	223813.196	182	1229.743
		Order 8	184685.495	182	1014.755
		Order 9	178354.830	182	979.972
		Order 10	184226.035	182	1012.231

### Tests of Within-Subjects Contrasts

Measure: MEASURE\_1

Source	Direction	Bin	F	Sig.	Partial Eta Squared
		Cubic			
		Order 4			
		Order 5			
		Order 6			
		Order 7			
		Order 8			
		Order 9			
		Order 10			
	Cubic	Linear			
		Quadratic			
		Cubic			
		Order 4			
		Order 5			
		Order 6			
		Order 7			
		Order 8			
		Order 9			
		Order 10			

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	9159757.943	1	9159757.943	1348.603	<.001
Encoding	121206.840	2	60603.420	8.923	<.001
Experiment	15486.029	1	15486.029	2.280	.133
Encoding * Experiment	5789.361	2	2894.680	.426	.654
Error	1236150.496	182	6792.036		

### Tests of Between-Subjects Effects

Measure: MEASURE\_1

Transformed Variable: Average

Source	Partial Eta Squared
Intercept	.881
Encoding	.089
Experiment	.012
Encoding * Experiment	.005
Error	