General Linear Model

[DataSet1] D:\Adiss\24Column.sav

Within-Subjects Factors

Measure: keystrokes

system	Dependent Variable
1	VAR00007
2	VAR00008
3	VAR00009

Descriptive Statistics

	Mean	Std. Deviation	N
Chibipoint (crosshairs ONLY)	5.00	.603	12
Chibipoint (crosshairs AND flyouts)	4.67	.888	12
Tabbing	7.00	.000	12

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
system	Pillai's Trace	.944	83.960[b]	2.000	10.000	.000
	Wilks' Lambda	.056	83.960[b]	2.000	10.000	.000
	Hotelling's Trace	16.792	83.960[b]	2.000	10.000	.000
	Roy's Largest Root	16.792	83.960[b]	2.000	10.000	.000

Multivariate Tests[a]

Effect		Partial Eta Squared
system	Pillai's Trace	.944
	Wilks' Lambda	.944
	Hotelling's Trace	.944
	Roy's Largest Root	.944

a. Design: Intercept
   Within Subjects Design: system

b. Exact statistic

Mauchly's Test of Sphericity[a]

Measure: keystrokes

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser
system	.742	2.984	2	.225	.795

Mauchly's Test of Sphericity[a]

Measure: keystrokes

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
system	.907	.500

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: system

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: keystrokes

Source		Type III Sum of Squares	df	Mean Square	F
system	Sphericity Assumed	38.222	2	19.111	54.057
	Greenhouse-Geisser	38.222	1.590	24.041	54.057
	Huynh-Feldt	38.222	1.815	21.060	54.057
	Lower-bound	38.222	1.000	38.222	54.057
Error(system)	Sphericity Assumed	7.778	22	.354	
	Greenhouse-Geisser	7.778	17.489	.445	
	Huynh-Feldt	7.778	19.964	.390	
	Lower-bound	7.778	11.000	.707	

Tests of Within-Subjects Effects

Measure: keystrokes

Source		Sig.	Partial Eta Squared
system	Sphericity Assumed	.000	.831
	Greenhouse-Geisser	.000	.831
	Huynh-Feldt	.000	.831
	Lower-bound	.000	.831
Error(system)	Sphericity Assumed		
	Greenhouse-Geisser		
	Huynh-Feldt		
	Lower-bound		

Tests of Within-Subjects Contrasts

Measure: keystrokes

Source	system	Type III Sum of Squares	df	Mean Square	F	Sig.
system	Linear	24.000	1	24.000	132.000	.000
	Quadratic	14.222	1	14.222	27.077	.000
Error(system)	Linear	2.000	11	.182		
	Quadratic	5.778	11	.525		

Tests of Within-Subjects Contrasts

Measure: keystrokes

Source	system	Partial Eta Squared
system	Linear	.923
	Quadratic	.711
Error(system)	Linear	
	Quadratic	

Tests of Between-Subjects Effects

Measure: keystrokes

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	1111.111	1	1111.111	2500.000	.000	.996
Error	4.889	11	.444			

Estimated Marginal Means

system

Estimates

Measure: keystrokes

system	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	5.000	.174	4.617	5.383
2	4.667	.256	4.103	5.231
3	7.000	.000	7.000	7.000

Pairwise Comparisons

Measure: keystrokes

(I) system	(J) system	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
1	2	.333	.284	.797	-.468	1.135
	3	-2.000[*]	.174	.000	-2.491	-1.509
2	1	-.333	.284	.797	-1.135	.468
	3	-2.333[*]	.256	.000	-3.056	-1.611
3	1	2.000[*]	.174	.000	1.509	2.491
	2	2.333[*]	.256	.000	1.611	3.056

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	.944	83.960[a]	2.000	10.000	.000	.944
Wilks' lambda	.056	83.960[a]	2.000	10.000	.000	.944
Hotelling's trace	16.792	83.960[a]	2.000	10.000	.000	.944
Roy's largest root	16.792	83.960[a]	2.000	10.000	.000	.944

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

a. Exact statistic