General Linear Model

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

Within-Subjects Factors

Measure: keystrokes

system	Dependent Variable
1	VAR00022
2	VAR00023
3	VAR00024

Descriptive Statistics

	Mean	Std. Deviation	N
Chibipoint (crosshairs ONLY)	6.67	1.371	12
Chibipoint (crosshairs AND flyouts)	3.75	.452	12
Tabbing	48.67	2.934	12

Multivariate Tests^a

Effect		Value	F	Hypothesis df	Error df	Sig.
system	Pillai's Trace	.996	1255.979^b	2.000	10.000	.000
	Wilks' Lambda	.004	1255.979^b	2.000	10.000	.000
	Hotelling's Trace	251.196	1255.979^b	2.000	10.000	.000
	Roy's Largest Root	251.196	1255.979^b	2.000	10.000	.000

Multivariate Tests^a

Effect		Partial Eta Squared
system	Pillai's Trace	.996
	Wilks' Lambda	.996
	Hotelling's Trace	.996
	Roy's Largest Root	.996

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	.558	5.834	2	.054	.693

Mauchly's Test of Sphericity[a]

Measure: keystrokes

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
system	.762	.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	15160.056	2	7580.028	2296.627
	Greenhouse-Geisser	15160.056	1.387	10930.378	2296.627
	Huynh-Feldt	15160.056	1.523	9952.081	2296.627
	Lower-bound	15160.056	1.000	15160.056	2296.627
Error(system)	Sphericity Assumed	72.611	22	3.301	
	Greenhouse-Geisser	72.611	15.257	4.759	
	Huynh-Feldt	72.611	16.756	4.333	
	Lower-bound	72.611	11.000	6.601	

Tests of Within-Subjects Effects

Measure: keystrokes

Source		Sig.	Partial Eta Squared
system	Sphericity Assumed	.000	.995
	Greenhouse-Geisser	.000	.995
	Huynh-Feldt	.000	.995
	Lower-bound	.000	.995
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	10584.000	1	10584.000	2587.200	.000
	Quadratic	4576.056	1	4576.056	1823.056	.000
Error(system)	Linear	45.000	11	4.091		
	Quadratic	27.611	11	2.510		

Tests of Within-Subjects Contrasts

Measure: keystrokes

Source	system	Partial Eta Squared
system	Linear	.996
	Quadratic	.994
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	13963.361	1	13963.361	3415.374	.000	.997
Error	44.972	11	4.088			

Estimated Marginal Means

system

Estimates

Measure: keystrokes

system	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	6.667	.396	5.796	7.538
2	3.750	.131	3.463	4.037
3	48.667	.847	46.803	50.531

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	2.917*	.434	.000	1.691	4.142
	3	-42.000*	.826	.000	-44.329	-39.671
2	1	-2.917*	.434	.000	-4.142	-1.691
	3	-44.917*	.883	.000	-47.407	-42.427
3	1	42.000*	.826	.000	39.671	44.329
	2	44.917*	.883	.000	42.427	47.407

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	.996	1255.979[a]	2.000	10.000	.000	.996
Wilks' lambda	.004	1255.979[a]	2.000	10.000	.000	.996
Hotelling's trace	251.196	1255.979[a]	2.000	10.000	.000	.996
Roy's largest root	251.196	1255.979[a]	2.000	10.000	.000	.996

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