General Linear Model

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

Within-Subjects Factors

Measure: keystrokes

system	Dependent Variable
1	VAR00010
2	VAR00011
3	VAR00012

Descriptive Statistics

	Mean	Std. Deviation	N
Chibipoint (crosshairs ONLY)	5.25	.452	12
Chibipoint (crosshairs AND flyouts)	3.17	.577	12
Tabbing	72.50	1.732	12

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
system	Pillai's Trace	.999	8435.636[b]	2.000	10.000	.000
	Wilks' Lambda	.001	8435.636[b]	2.000	10.000	.000
	Hotelling's Trace	1687.127	8435.636[b]	2.000	10.000	.000
	Roy's Largest Root	1687.127	8435.636[b]	2.000	10.000	.000

Multivariate Tests[a]

Effect		Partial Eta Squared
system	Pillai's Trace	.999
	Wilks' Lambda	.999
	Hotelling's Trace	.999
	Roy's Largest Root	.999

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	.394	9.308	2	.010	.623

Mauchly's Test of Sphericity[a]

Measure: keystrokes

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
system	.664	.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	37336.056	2	18668.028	15056.088
	Greenhouse-Geisser	37336.056	1.246	29976.664	15056.088
	Huynh-Feldt	37336.056	1.327	28131.705	15056.088
	Lower-bound	37336.056	1.000	37336.056	15056.088
Error(system)	Sphericity Assumed	27.278	22	1.240	
	Greenhouse-Geisser	27.278	13.701	1.991	
	Huynh-Feldt	27.278	14.599	1.868	
	Lower-bound	27.278	11.000	2.480	

Tests of Within-Subjects Effects

Measure: keystrokes

Source		Sig.	Partial Eta Squared
system	Sphericity Assumed	.000	.999
	Greenhouse-Geisser	.000	.999
	Huynh-Feldt	.000	.999
	Lower-bound	.000	.999
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	27135.375	1	27135.375	18510.953	.000
	Quadratic	10200.681	1	10200.681	10060.945	.000
Error(system)	Linear	16.125	11	1.466		
	Quadratic	11.153	11	1.014		

Tests of Within-Subjects Contrasts

Measure: keystrokes

Source	system	Partial Eta Squared
system	Linear	.999
	Quadratic	.999
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	26190.028	1	26190.028	24752.389	.000	1.000
Error	11.639	11	1.058			

Estimated Marginal Means

system

Estimates

Measure: keystrokes

system	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	5.250	.131	4.963	5.537
2	3.167	.167	2.800	3.533
3	72.500	.500	71.400	73.600

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	2.083*	.229	.000	1.438	2.729
	3	-67.250*	.494	.000	-68.644	-65.856
2	1	-2.083*	.229	.000	-2.729	-1.438
	3	-69.333*	.569	.000	-70.937	-67.730
3	1	67.250*	.494	.000	65.856	68.644
	2	69.333*	.569	.000	67.730	70.937

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	.999	8435.636[a]	2.000	10.000	.000	.999
Wilks' lambda	.001	8435.636[a]	2.000	10.000	.000	.999
Hotelling's trace	1687.127	8435.636[a]	2.000	10.000	.000	.999
Roy's largest root	1687.127	8435.636[a]	2.000	10.000	.000	.999

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