General Linear Model

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

Within-Subjects Factors

Measure: keystrokes

system	Dependent Variable
1	VAR00016
2	VAR00017
3	VAR00018

Descriptive Statistics

	Mean	Std. Deviation	N
Chibipoint (crosshairs ONLY)	6.42	3.204	12
Chibipoint (crosshairs AND flyouts)	2.33	.492	12
Tabbing	48.50	30.485	12

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
system	Pillai's Trace	.867	32.506[b]	2.000	10.000	.000
	Wilks' Lambda	.133	32.506[b]	2.000	10.000	.000
	Hotelling's Trace	6.501	32.506[b]	2.000	10.000	.000
	Roy's Largest Root	6.501	32.506[b]	2.000	10.000	.000

Multivariate Tests[a]

Effect		Partial Eta Squared
system	Pillai's Trace	.867
	Wilks' Lambda	.867
	Hotelling's Trace	.867
	Roy's Largest Root	.867

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	.023	37.699	2	.000	.506

Mauchly's Test of Sphericity[a]

Measure: keystrokes

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
system	.508	.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	15676.167	2	7838.083	24.176
	Greenhouse-Geisser	15676.167	1.012	15495.465	24.176
	Huynh-Feldt	15676.167	1.015	15441.795	24.176
	Lower-bound	15676.167	1.000	15676.167	24.176
Error(system)	Sphericity Assumed	7132.500	22	324.205	
	Greenhouse-Geisser	7132.500	11.128	640.935	
	Huynh-Feldt	7132.500	11.167	638.715	
	Lower-bound	7132.500	11.000	648.409	

Tests of Within-Subjects Effects

Measure: keystrokes

Source		Sig.	Partial Eta Squared
system	Sphericity Assumed	.000	.687
	Greenhouse-Geisser	.000	.687
	Huynh-Feldt	.000	.687
	Lower-bound	.000	.687
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	10626.042	1	10626.042	21.289	.001
	Quadratic	5050.125	1	5050.125	33.831	.000
Error(system)	Linear	5490.458	11	499.133		
	Quadratic	1642.042	11	149.277		

Tests of Within-Subjects Contrasts

Measure: keystrokes

Source	system	Partial Eta Squared
system	Linear	.659
	Quadratic	.755
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	13110.250	1	13110.250	44.981	.000	.804
Error	3206.083	11	291.462			

Estimated Marginal Means

system

Estimates

Measure: keystrokes

system	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	6.417	.925	4.381	8.452
2	2.333	.142	2.020	2.646
3	48.500	8.800	29.130	67.870

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	4.083*	.839	.001	1.717	6.449
	3	-42.083*	9.121	.002	-67.804	-16.362
2	1	-4.083*	.839	.001	-6.449	-1.717
	3	-46.167*	8.844	.001	-71.106	-21.227
3	1	42.083*	9.121	.002	16.362	67.804
	2	46.167*	8.844	.001	21.227	71.106

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	.867	32.506[a]	2.000	10.000	.000	.867
Wilks' lambda	.133	32.506[a]	2.000	10.000	.000	.867
Hotelling's trace	6.501	32.506[a]	2.000	10.000	.000	.867
Roy's largest root	6.501	32.506[a]	2.000	10.000	.000	.867

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