General Linear Model

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

Within-Subjects Factors

Measure: keystrokes

system	Dependent Variable
1	VAR00013
2	VAR00014
3	VAR00015

Descriptive Statistics

	Mean	Std. Deviation	N
Chibipoint (crosshairs ONLY)	4.42	.996	12
Chibipoint (crosshairs AND flyouts)	2.92	.289	12
Tabbing	29.75	9.324	12

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
system	Pillai's Trace	.895	42.718[b]	2.000	10.000	.000
	Wilks' Lambda	.105	42.718[b]	2.000	10.000	.000
	Hotelling's Trace	8.544	42.718[b]	2.000	10.000	.000
	Roy's Largest Root	8.544	42.718[b]	2.000	10.000	.000

Multivariate Tests[a]

Effect		Partial Eta Squared
system	Pillai's Trace	.895
	Wilks' Lambda	.895
	Hotelling's Trace	.895
	Roy's Largest Root	.895

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	.034	33.954	2	.000	.509

Mauchly's Test of Sphericity[a]

Measure: keystrokes

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
system	.511	.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	5456.222	2	2728.111	91.990
	Greenhouse-Geisser	5456.222	1.017	5364.759	91.990
	Huynh-Feldt	5456.222	1.022	5337.717	91.990
	Lower-bound	5456.222	1.000	5456.222	91.990
Error(system)	Sphericity Assumed	652.444	22	29.657	
	Greenhouse-Geisser	652.444	11.188	58.319	
	Huynh-Feldt	652.444	11.244	58.025	
	Lower-bound	652.444	11.000	59.313	

Tests of Within-Subjects Effects

Measure: keystrokes

Source		Sig.	Partial Eta Squared
system	Sphericity Assumed	.000	.893
	Greenhouse-Geisser	.000	.893
	Huynh-Feldt	.000	.893
	Lower-bound	.000	.893
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	3850.667	1	3850.667	91.222	.000
	Quadratic	1605.556	1	1605.556	93.887	.000
Error(system)	Linear	464.333	11	42.212		
	Quadratic	188.111	11	17.101		

Tests of Within-Subjects Contrasts

Measure: keystrokes

Source	system	Partial Eta Squared
system	Linear	.892
	Quadratic	.895
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	5500.694	1	5500.694	191.699	.000	.946
Error	315.639	11	28.694			

Estimated Marginal Means

system

Estimates

Measure: keystrokes

system	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	4.417	.288	3.784	5.050
2	2.917	.083	2.733	3.100
3	29.750	2.692	23.826	35.674

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	1.500*	.314	.002	.615	2.385
	3	-25.333*	2.652	.000	-32.813	-17.853
2	1	-1.500*	.314	.002	-2.385	-.615
	3	-26.833*	2.774	.000	-34.656	-19.011
3	1	25.333*	2.652	.000	17.853	32.813
	2	26.833*	2.774	.000	19.011	34.656

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	.895	42.718[a]	2.000	10.000	.000	.895
Wilks' lambda	.105	42.718[a]	2.000	10.000	.000	.895
Hotelling's trace	8.544	42.718[a]	2.000	10.000	.000	.895
Roy's largest root	8.544	42.718[a]	2.000	10.000	.000	.895

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