

```

GET
FILE= '/Users/birch/git/diss/evaluationStudy/analyses/Split/3Column.sav'.
DATASET NAME DataSet1 WINDOW=FRONT.
SPLIT FILE SEPARATE BY NavigationType.
UNIANOVA Keystrokes BY System
/METHOD=SSTYPE(3)
/INTERCEPT=INCLUDE
/EMMEANS=TABLES(System) COMPARE ADJ(LSD)
/PRINT=OPOWER ETASQ DESCRIPTIVE
/CRITERIA=ALPHA(.05)
/DESIGN=System.

```

Univariate Analysis of Variance

Notes

Output Created		25-MAR-2014 01:54:42
Comments		
Input	Data	/Users/birch/git/diss/e valuationStudy/analyses /Split/3Column.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	Navigation type
	N of Rows in Working Data File	288
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.
Syntax		UNIANOVA Keystrokes BY System /METHOD=SSTYPE(3) /INTERCEPT=INCLUDE /EMMEANS=TABLES (System) COMPARE ADJ (LSD) /PRINT=OPOWER ...
Resources	Processor Time	00:00:00.10
	Elapsed Time	00:00:00.00

[DataSet1] /Users/birch/git/diss/evaluationStudy/analyses/Split/3Column.sav

Navigation type = [Within form] distant related traversal

Between-Subjects Factors^a

		N
System	Chibipoint (crosshairs AND flyouts)	12
	Chibipoint (crosshairs ONLY)	12
	Tabbing	12

a. Navigation type = [Within form] distant related traversal

Descriptive Statistics^a

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	2.25	.452	12
Chibipoint (crosshairs ONLY)	4.67	.492	12
Tabbing	4.33	1.155	12
Total	3.75	1.317	36

a. Navigation type = [Within form] distant related traversal

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	41.167 ^b	2	20.583	34.685	.000	.678	69.370
Intercept	506.250	1	506.250	853.085	.000	.963	853.085
System	41.167	2	20.583	34.685	.000	.678	69.370
Error	19.583	33	.593				
Total	567.000	36					
Corrected Total	60.750	35					

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Observed Power ^c
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

a. Navigation type = [Within form] distant related traversal

b. R Squared = .678 (Adjusted R Squared = .658)

c. Computed using alpha =

Estimated Marginal Means

System

Estimates^a

Dependent Variable: Keystrokes

System	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	2.250	.222	1.798	2.702
Chibipoint (crosshairs ONLY)	4.667	.222	4.214	5.119
Tabbing	4.333	.222	3.881	4.786

a. Navigation type = [Within form] distant related traversal

Pairwise Comparisons^a

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig. ^c	95% Confidence Interval for Difference ^c	
					Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-2.417 [*]	.314	.000	-3.057	-1.777
	Tabbing	-2.083 [*]	.314	.000	-2.723	-1.443
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	2.417 [*]	.314	.000	1.777	3.057
	Tabbing	.333	.314	.297	-.307	.973
Tabbing	Chibipoint (crosshairs AND flyouts)	2.083 [*]	.314	.000	1.443	2.723
	Chibipoint (crosshairs ONLY)	-.333	.314	.297	-.973	.307

Based on estimated marginal means

*. The mean difference is significant

a. Navigation type = [Within form] distant related traversal

c. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests^a

Dependent Variable: Keystrokes

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Contrast	41.167	2	20.583	34.685	.000	.678	69.370
Error	19.583	33	.593				

Univariate Tests^a

Dependent Variable: Keystrokes

	Observed Power ^b
Contrast	1.000
Error	

The F tests the effect of System. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Navigation type = [Within form] distant related traversal

b. Computed using alpha =

Navigation type = [Within form] Immediate related traversal

Between-Subjects Factors^a

		N
System	Chibipoint (crosshairs AND flyouts)	12
	Chibipoint (crosshairs ONLY)	12
	Tabbing	12

a. Navigation type = [Within form] Immediate related traversal

Descriptive Statistics^a

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	3.00	.000	12
Chibipoint (crosshairs ONLY)	5.67	.492	12
Tabbing	1.00	.000	12
Total	3.22	1.958	36

a. Navigation type = [Within form] Immediate related traversal

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	131.556 ^b	2	65.778	814.000	.000	.980	1628.000
Intercept	373.778	1	373.778	4625.500	.000	.993	4625.500
System	131.556	2	65.778	814.000	.000	.980	1628.000
Error	2.667	33	.081				
Total	508.000	36					
Corrected Total	134.222	35					

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Observed Power ^c
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

a. Navigation type = [Within form] Immediate related traversal

b. R Squared = .980 (Adjusted R Squared = .979)

c. Computed using alpha =

Estimated Marginal Means

System

Estimates^a

Dependent Variable: Keystrokes

System	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	3.000	.082	2.833	3.167
Chibipoint (crosshairs ONLY)	5.667	.082	5.500	5.834
Tabbing	1.000	.082	.833	1.167

a. Navigation type = [Within form] Immediate related traversal

Pairwise Comparisons^a

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig. ^c	95% Confidence Interval for Difference ^c	
					Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-2.667 [*]	.116	.000	-2.903	-2.431
	Tabbing	2.000 [*]	.116	.000	1.764	2.236
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	2.667 [*]	.116	.000	2.431	2.903
	Tabbing	4.667 [*]	.116	.000	4.431	4.903
Tabbing	Chibipoint (crosshairs AND flyouts)	-2.000 [*]	.116	.000	-2.236	-1.764
	Chibipoint (crosshairs ONLY)	-4.667 [*]	.116	.000	-4.903	-4.431

Based on estimated marginal means

*. The mean difference is significant at the

a. Navigation type = [Within form] Immediate related traversal

c. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests^a

Dependent Variable: Keystrokes

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Contrast	131.556	2	65.778	814.000	.000	.980	1628.000
Error	2.667	33	.081				

Univariate Tests^a

Dependent Variable: Keystrokes

	Observed Power ^b
Contrast	1.000
Error	

The F tests the effect of System. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Navigation type = [Within form] Immediate related traversal

b. Computed using alpha =

Navigation type = [Within form] Spatially close, markup distant traversal

Between-Subjects Factors^a

		N
System	Chibipoint (crosshairs AND flyouts)	12
	Chibipoint (crosshairs ONLY)	12
	Tabbing	12

a. Navigation type = [Within form] Spatially close, markup distant traversal

Descriptive Statistics^a

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	2.92	.289	12
Chibipoint (crosshairs ONLY)	4.42	.996	12
Tabbing	29.75	9.324	12
Total	12.36	13.548	36

a. Navigation type = [Within form] Spatially close, markup distant traversal

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	5456.222 ^b	2	2728.111	92.996	.000	.849	185.992
Intercept	5500.694	1	5500.694	187.508	.000	.850	187.508
System	5456.222	2	2728.111	92.996	.000	.849	185.992
Error	968.083	33	29.336				
Total	11925.000	36					
Corrected Total	6424.306	35					

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Observed Power ^c
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

a. Navigation type = [Within form] Spatially close, markup distant traversal

b. R Squared = .849 (Adjusted R Squared = .840)

c. Computed using alpha =

Estimated Marginal Means

System

Estimates^a

Dependent Variable: Keystrokes

System	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	2.917	1.564	-.264	6.098
Chibipoint (crosshairs ONLY)	4.417	1.564	1.236	7.598
Tabbing	29.750	1.564	26.569	32.931

a. Navigation type = [Within form] Spatially close, markup distant traversal

Pairwise Comparisons^a

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig. ^c	95% Confidence Interval for Difference ^c	
					Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-1.500	2.211	.502	-5.999	2.999
	Tabbing	-26.833 [*]	2.211	.000	-31.332	-22.335
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	1.500	2.211	.502	-2.999	5.999
	Tabbing	-25.333 [*]	2.211	.000	-29.832	-20.835
Tabbing	Chibipoint (crosshairs AND flyouts)	26.833 [*]	2.211	.000	22.335	31.332
	Chibipoint (crosshairs ONLY)	25.333 [*]	2.211	.000	20.835	29.832

Based on estimated marginal means

*. The mean difference is significant

a. Navigation type = [Within form] Spatially close, markup distant traversal

c. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests^a

Dependent Variable: Keystrokes

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Contrast	5456.222	2	2728.111	92.996	.000	.849	185.992
Error	968.083	33	29.336				

Univariate Tests^a

Dependent Variable: Keystrokes

	Observed Power ^b
Contrast	1.000
Error	

The F tests the effect of System. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Navigation type = [Within form] Spatially close, markup distant traversal

b. Computed using alpha =

Navigation type = Link surrounded by links

Between-Subjects Factors^a

	N
System Chibipoint (crosshairs AND flyouts)	12
Chibipoint (crosshairs ONLY)	12
Tabbing	12

a. Navigation type = Link surrounded by links

Descriptive Statistics^a

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	3.75	.452	12
Chibipoint (crosshairs ONLY)	6.67	1.371	12
Tabbing	48.67	2.934	12
Total	19.69	20.893	36

a. Navigation type = Link surrounded by links

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	15160.056 ^b	2	7580.028	2127.350	.000	.992	4254.700
Intercept	13963.361	1	13963.361	3918.845	.000	.992	3918.845
System	15160.056	2	7580.028	2127.350	.000	.992	4254.700
Error	117.583	33	3.563				
Total	29241.000	36					
Corrected Total	15277.639	35					

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Observed Power ^c
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

a. Navigation type = Link surrounded by links

b. R Squared = .992 (Adjusted R Squared = .992)

c. Computed using alpha =

Estimated Marginal Means

System

Estimates^a

Dependent Variable: Keystrokes

System	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	3.750	.545	2.641	4.859
Chibipoint (crosshairs ONLY)	6.667	.545	5.558	7.775
Tabbing	48.667	.545	47.558	49.775

a. Navigation type = Link surrounded by links

Pairwise Comparisons^a

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig. ^c	95% Confidence Interval for Difference ^c	
					Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-2.917 [*]	.771	.001	-4.485	-1.349
	Tabbing	-44.917 [*]	.771	.000	-46.485	-43.349
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	2.917 [*]	.771	.001	1.349	4.485
	Tabbing	-42.000 [*]	.771	.000	-43.568	-40.432
Tabbing	Chibipoint (crosshairs AND flyouts)	44.917 [*]	.771	.000	43.349	46.485
	Chibipoint (crosshairs ONLY)	42.000 [*]	.771	.000	40.432	43.568

Based on estimated marginal means

*. The mean difference is significant

a. Navigation type = Link surrounded by links

c. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests^a

Dependent Variable: Keystrokes

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Contrast	15160.056	2	7580.028	2127.350	.000	.992	4254.700
Error	117.583	33	3.563				

Univariate Tests^a

Dependent Variable: Keystrokes

	Observed Power ^b
Contrast	1.000
Error	

The F tests the effect of System. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Navigation type = Link surrounded by links

b. Computed using alpha =

Navigation type = Low visual indicator of focus

Between-Subjects Factors^a

		N
System	Chibipoint (crosshairs AND flyouts)	12
	Chibipoint (crosshairs ONLY)	12
	Tabbing	12

a. Navigation type = Low visual indicator of focus

Descriptive Statistics^a

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	2.33	.492	12
Chibipoint (crosshairs ONLY)	6.42	3.204	12
Tabbing	48.50	30.485	12
Total	19.08	27.263	36

a. Navigation type = Low visual indicator of focus

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	15676.167 ^b	2	7838.083	25.019	.000	.603	50.037
Intercept	13110.250	1	13110.250	41.847	.000	.559	41.847
System	15676.167	2	7838.083	25.019	.000	.603	50.037
Error	10338.583	33	313.290				
Total	39125.000	36					
Corrected Total	26014.750	35					

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Observed Power ^c
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

a. Navigation type = Low visual indicator of focus

b. R Squared = .603 (Adjusted R Squared = .579)

c. Computed using alpha =

Estimated Marginal Means

System

Estimates^a

Dependent Variable: Keystrokes

System	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	2.333	5.110	-8.062	12.729
Chibipoint (crosshairs ONLY)	6.417	5.110	-3.979	16.812
Tabbing	48.500	5.110	38.105	58.895

a. Navigation type = Low visual indicator of focus

Pairwise Comparisons^a

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig. ^c	95% Confidence Interval for Difference ^c	
					Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-4.083	7.226	.576	-18.785	10.618
	Tabbing	-46.167 [*]	7.226	.000	-60.868	-31.465
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	4.083	7.226	.576	-10.618	18.785
	Tabbing	-42.083 [*]	7.226	.000	-56.785	-27.382
Tabbing	Chibipoint (crosshairs AND flyouts)	46.167 [*]	7.226	.000	31.465	60.868
	Chibipoint (crosshairs ONLY)	42.083 [*]	7.226	.000	27.382	56.785

Based on estimated marginal means

*. The mean difference is significant at the

a. Navigation type = Low visual indicator of focus

c. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests^a

Dependent Variable: Keystrokes

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Contrast	15676.167	2	7838.083	25.019	.000	.603	50.037
Error	10338.583	33	313.290				

Univariate Tests^a

Dependent Variable: Keystrokes

	Observed Power ^b
Contrast	1.000
Error	

The F tests the effect of System. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Navigation type = Low visual indicator of focus

b. Computed using alpha =

Navigation type = Scrolled element

Between-Subjects Factors^a

	N
System Chibipoint (crosshairs AND flyouts)	12
Chibipoint (crosshairs ONLY)	12
Tabbing	12

a. Navigation type = Scrolled element

Descriptive Statistics^a

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	3.50	1.087	12
Chibipoint (crosshairs ONLY)	5.83	1.115	12
Tabbing	23.33	1.155	12
Total	10.89	9.042	36

a. Navigation type = Scrolled element

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	2820.222 ^b	2	1410.111	1125.815	.000	.986	2251.629
Intercept	4268.444	1	4268.444	3407.871	.000	.990	3407.871
System	2820.222	2	1410.111	1125.815	.000	.986	2251.629
Error	41.333	33	1.253				
Total	7130.000	36					
Corrected Total	2861.556	35					

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Observed Power ^c
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

a. Navigation type = Scrolled element

b. R Squared = .986 (Adjusted R Squared = .985)

c. Computed using alpha =

Estimated Marginal Means

System

Estimates^a

Dependent Variable: Keystrokes

System	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	3.500	.323	2.843	4.157
Chibipoint (crosshairs ONLY)	5.833	.323	5.176	6.491
Tabbing	23.333	.323	22.676	23.991

a. Navigation type = Scrolled element

Pairwise Comparisons^a

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig. ^c	95% Confidence Interval for Difference ^c	
					Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-2.333 [*]	.457	.000	-3.263	-1.404
	Tabbing	-19.833 [*]	.457	.000	-20.763	-18.904
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	2.333 [*]	.457	.000	1.404	3.263
	Tabbing	-17.500 [*]	.457	.000	-18.430	-16.570
Tabbing	Chibipoint (crosshairs AND flyouts)	19.833 [*]	.457	.000	18.904	20.763
	Chibipoint (crosshairs ONLY)	17.500 [*]	.457	.000	16.570	18.430

Based on estimated marginal means

*. The mean difference is significant

a. Navigation type = Scrolled element

c. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests^a

Dependent Variable: Keystrokes

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Contrast	2820.222	2	1410.111	1125.815	.000	.986	2251.629
Error	41.333	33	1.253				

Univariate Tests^a

Dependent Variable: Keystrokes

	Observed Power ^b
Contrast	1.000
Error	

The F tests the effect of System. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Navigation type = Scrolled element

b. Computed using alpha =

Navigation type = Visually early element

Between-Subjects Factors^a

	N
System Chibipoint (crosshairs AND flyouts)	12
Chibipoint (crosshairs ONLY)	12
Tabbing	12

a. Navigation type = Visually early element

Descriptive Statistics^a

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	4.67	.888	12
Chibipoint (crosshairs ONLY)	5.00	.603	12
Tabbing	7.00	.000	12
Total	5.56	1.206	36

a. Navigation type = Visually early element

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	38.222 ^b	2	19.111	49.789	.000	.751	99.579
Intercept	1111.111	1	1111.111	2894.737	.000	.989	2894.737
System	38.222	2	19.111	49.789	.000	.751	99.579
Error	12.667	33	.384				
Total	1162.000	36					
Corrected Total	50.889	35					

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Observed Power ^c
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

a. Navigation type = Visually early element

b. R Squared = .751 (Adjusted R Squared = .736)

c. Computed using alpha =

Estimated Marginal Means

System

Estimates^a

Dependent Variable: Keystrokes

System	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	4.667	.179	4.303	5.031
Chibipoint (crosshairs ONLY)	5.000	.179	4.636	5.364
Tabbing	7.000	.179	6.636	7.364

a. Navigation type = Visually early element

Pairwise Comparisons^a

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig. ^c	95% Confidence Interval for Difference ^c	
					Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-.333	.253	.197	-.848	.181
	Tabbing	-2.333*	.253	.000	-2.848	-1.819
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	.333	.253	.197	-.181	.848
	Tabbing	-2.000*	.253	.000	-2.515	-1.485
Tabbing	Chibipoint (crosshairs AND flyouts)	2.333*	.253	.000	1.819	2.848
	Chibipoint (crosshairs ONLY)	2.000*	.253	.000	1.485	2.515

Based on estimated marginal means

*. The mean difference is significant

a. Navigation type = Visually early element

c. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests^a

Dependent Variable: Keystrokes

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Contrast	38.222	2	19.111	49.789	.000	.751	99.579
Error	12.667	33	.384				

Univariate Tests^a

Dependent Variable: Keystrokes

	Observed Power ^b
Contrast	1.000
Error	

The F tests the effect of System. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Navigation type = Visually early element

b. Computed using alpha =

Navigation type = Visually late element

Between-Subjects Factors^a

		N
System	Chibipoint (crosshairs AND flyouts)	12
	Chibipoint (crosshairs ONLY)	12
	Tabbing	12

a. Navigation type = Visually late element

Descriptive Statistics^a

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	3.17	.577	12
Chibipoint (crosshairs ONLY)	5.25	.452	12
Tabbing	72.50	1.732	12
Total	26.97	32.678	36

a. Navigation type = Visually late element

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	37336.056 ^b	2	18668.028	15829.848	.000	.999	31659.696
Intercept	26190.028	1	26190.028	22208.246	.000	.999	22208.246
System	37336.056	2	18668.028	15829.848	.000	.999	31659.696
Error	38.917	33	1.179				
Total	63565.000	36					
Corrected Total	37374.972	35					

Tests of Between-Subjects Effects^a

Dependent Variable: Keystrokes

Source	Observed Power ^c
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

a. Navigation type = Visually late element

b. R Squared = .999 (Adjusted R Squared = .999)

c. Computed using alpha =

Estimated Marginal Means

System

Estimates^a

Dependent Variable: Keystrokes

System	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	3.167	.313	2.529	3.804
Chibipoint (crosshairs ONLY)	5.250	.313	4.612	5.888
Tabbing	72.500	.313	71.862	73.138

a. Navigation type = Visually late element

Pairwise Comparisons^a

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig. ^c	95% Confidence Interval for Difference ^c	
					Lower Bound	Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-2.083 [*]	.443	.000	-2.985	-1.181
	Tabbing	-69.333 [*]	.443	.000	-70.235	-68.431
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	2.083 [*]	.443	.000	1.181	2.985
	Tabbing	-67.250 [*]	.443	.000	-68.152	-66.348
Tabbing	Chibipoint (crosshairs AND flyouts)	69.333 [*]	.443	.000	68.431	70.235
	Chibipoint (crosshairs ONLY)	67.250 [*]	.443	.000	66.348	68.152

Based on estimated marginal means

*. The mean difference is significant

a. Navigation type = Visually late element

c. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Univariate Tests^a

Dependent Variable: Keystrokes

	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Contrast	37336.056	2	18668.028	15829.848	.000	.999	31659.696
Error	38.917	33	1.179				

Univariate Tests^a

Dependent Variable: Keystrokes

	Observed Power ^b
Contrast	1.000
Error	

The F tests the effect of System. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Navigation type = Visually late element

b. Computed using alpha =

DATASET ACTIVATE DataSet1.

SAVE OUTFILE=' /Users/birch/git/diss/evaluationStudy/analyses/Split/3Column.sav'
/COMPRESSED.