```
 DATASET ACTIVATE DataSet15.
* Chart Builder.
GGRAPH
  /GRAPHDATASET NAME="graphdataset" VARIABLES=System MEANCI(Keystrokes, 95)[name="MEAN_Keystrol
  /GRAPHSPEC SOURCE=INLINE.
BEGIN GPL
  SOURCE: s=userSource(id("graphdataset"))
  DATA: System=col(source(s), name("System"), unit.category())
  DATA: MEAN_Keystrokes=col(source(s), name("MEAN_Keystrokes"))
  DATA: LOW=col(source(s), name("MEAN_Keystrokes_LOW"))
  DATA: HIGH=col(source(s), name("MEAN_Keystrokes_HIGH"))
  GUIDE: axis(dim(1), label("System"))
  GUIDE: axis(dim(2), label("Mean Keystrokes"))
  GUIDE: text.footnote(label("Error Bars: 95% CI"))
  SCALE: linear(dim(2), include(0))
  ELEMENT: interval(position(System*MEAN_Keystrokes), shape.interior(shape.square))
  ELEMENT: interval(position(region.spread.range(System*(LOW+HIGH))), shape.interior(shape.ibea
END GPL.
```

GGraph

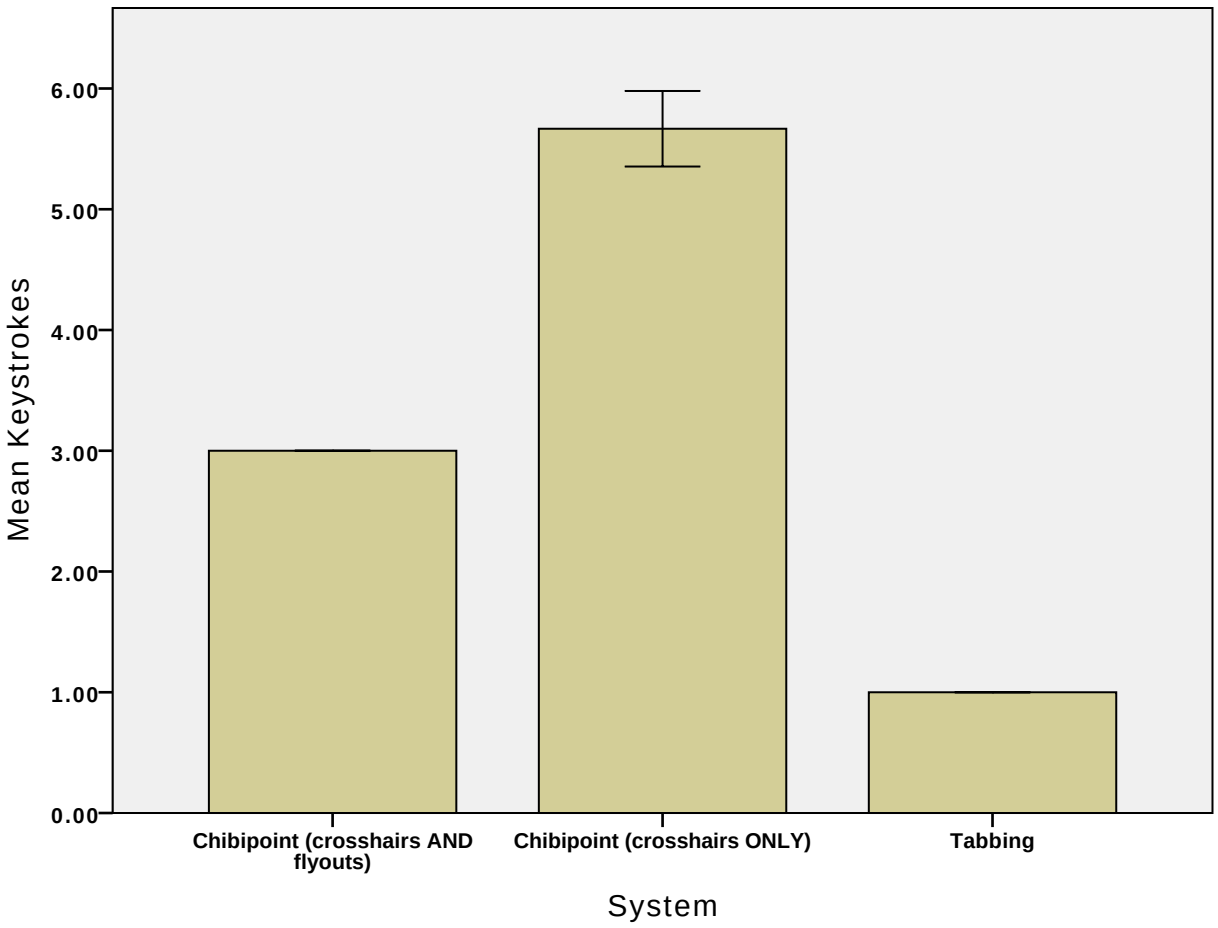
Notes

Output Created		**20-MAR-2014 18:11:40**
Comments		
Input	**Data**	**/Users/birch/git/diss/evaluationStudy/analyses/Univariate/[Within form] Immediate related traversal.sav**
	Active Dataset	**DataSet15**
	Filter	**<none>**
	Weight	**<none>**
	Split File	**<none>**
	N of Rows in Working Data File	**36**

Notes

Syntax		**GGRAPH /GRAPHDATASET NAME="graphdataset" VARIABLES=System MEANCI(Keystrokes, 95) [name="MEAN_Keystrokes" LOW="MEAN_Keystrokes_LOW" HIGH="MEAN_Keystrokes_HIGH"] MISSING=LISTWISE REPORTMISSING=NO /GRAPHSPEC SOURCE=INLINE. BEGIN GPL SOURCE: s=userSource(id("graphdataset")) DATA: System=col(source(s), name("System"), unit.category()) DATA: MEAN_Keystrokes=col(source(s), name("MEAN_Keystrokes")) DATA: LOW=col(source(s), name("MEAN_Keystrokes_LOW")) DATA: HIGH=col(source(s), name("MEAN_Keystrokes_HIGH")) GUIDE: axis(dim(1), label("System")) GUIDE: axis(dim(2), label("Mean Keystrokes")) GUIDE: text.footnote(label("Error Bars: 95% CI")) SCALE: linear(dim(2), include(0)) ELEMENT: interval(position(System*MEAN_Keystrokes), shape.interior(shape.square)) ELEMENT: interval(position(region.spread.range(System*(LOW+HIGH))), shape.interior(shape.ibeam)) END GPL.**
Resources	**Processor Time**	**00:00:00.32**
	Elapsed Time	**00:00:00.00**

[DataSet15] /Users/birch/git/diss/evaluationStudy/analyses/Univariate/[Within form] Immediate related traversal.sav



Error Bars: 95% CI

```
UNIANOVA Keystrokes BY System
 /METHOD=SSTYPE(3)
 /INTERCEPT=INCLUDE
 /EMMEANS=TABLES(System) COMPARE ADJ(BONFERRONI)
 /PRINT=OPOWER ETASQ DESCRIPTIVE
 /CRITERIA=ALPHA(.05)
 /DESIGN=System.
```

Univariate Analysis of Variance

Notes

Output Created		20-MAR-2014 18:12:18
Comments		
Input	Data	/Users/birch/git/diss/evaluationStudy/analyses/Univariate/[Within form] Immediate related traversal.sav
	Active Dataset	DataSet15
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	36
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 (BONFERRONI) /PRINT=OPOWER ETASQ DESCRIPTIVE /CRITERIA=ALPHA(.05) /DESIGN=System.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.00

[DataSet15] /Users/birch/git/diss/evaluationStudy/analyses/Univariate/[Within form] Immediate related traversal.sav

Between-Subjects Factors

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

Descriptive Statistics

Dependent Variable: Keystrokes

System	Mean	Std. Deviation	N
Chibipoint (crosshairs AND flyouts)	3.0000	.00000	12
Chibipoint (crosshairs ONLY)	5.6667	.49237	12
Tabbing	1.0000	.00000	12
Total	3.2222	1.95830	36

Tests of Between-Subjects Effects

Dependent Variable: Keystrokes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter
Corrected Model	131.556[a]	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

Dependent Variable: Keystrokes

Source	Observed Power[b]
Corrected Model	1.000
Intercept	1.000
System	1.000
Error	
Total	
Corrected Total	

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

b. Computed using alpha =

Estimated Marginal Means

System

Estimates

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

Pairwise Comparisons

Dependent Variable: Keystrokes

(I) System	(J) System	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence ... [b] Lower Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-2.667*	.116	.000	-2.959
	Tabbing	2.000*	.116	.000	1.707
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	2.667*	.116	.000	2.374
	Tabbing	4.667*	.116	.000	4.374
Tabbing	Chibipoint (crosshairs AND flyouts)	-2.000*	.116	.000	-2.293
	Chibipoint (crosshairs ONLY)	-4.667*	.116	.000	-4.959

Pairwise Comparisons

Dependent Variable: Keystrokes

(I) System	(J) System	95% Confidence ... [b] Upper Bound
Chibipoint (crosshairs AND flyouts)	Chibipoint (crosshairs ONLY)	-2.374
	Tabbing	2.293
Chibipoint (crosshairs ONLY)	Chibipoint (crosshairs AND flyouts)	2.959
	Tabbing	4.959
Tabbing	Chibipoint (crosshairs AND flyouts)	-1.707
	Chibipoint (crosshairs ONLY)	-4.374

Based on estimated marginal means

***. The mean difference is significant at the**

b. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

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

Dependent Variable: Keystrokes

	Observed Power[a]
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. Computed using alpha =