1 Summaries of Nonparametric Statistics Analysis

Table 1: Summary of Scheirer-Ray-Hare results

	Df	Sum Sq	H	p.value	Sig
gain.theta					
gain.theta:Type	1	16.875	0.485	0.486	
gain.theta:CLRole	1	50.370	1.447	0.229	
gain.theta:Type:CLRole	1	0.132	0.004	0.951	
gain.theta:Residuals	16	594.123			

Signif. codes: 0 "**" 0.01 "*" 0.05

2 Summaries of Wilcoxon Data Analysis

Table 2: Descriptive statistic of the pair wilcoxon analysis

Signif. codes: 0 "**" 0.01 "*" 0.05

Table 3: Full descriptive statistic of the pair wilcoxon analysis

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value
gain.theta.Type.non-gamified:ont-gamified.less.1	non-gamified	8	2.00	9.38	75.0	39.0	-0.70	0.254
gain.theta.Type.non-gamified:ont-gamified.less.2	ont-gamified	12	2.80	11.25	135.0	39.0	-0.70	0.254
gain.theta.Type.non-gamified:ont-gamified.greater.1	non-gamified	8	2.00	9.38	75.0	39.0	-0.70	0.758
gain.theta.Type.non-gamified:ont-gamified.greater.2	ont-gamified	12	2.80	11.25	135.0	39.0	-0.70	0.758
gain.theta.Type.non-gamified:ont-gamified.two.sided.1	non-gamified	8	2.00	9.38	75.0	39.0	-0.70	0.508
gain.theta.Type.non-gamified:ont-gamified.two.sided.2	ont-gamified	12	2.80	11.25	135.0	39.0	-0.70	0.508
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.less.1	non-gamified.Apprentice	5	3.66	5.20	26.0	11.0	1.04	0.875
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.less.2	non-gamified.Master	3	1.39	3.33	10.0	11.0	1.04	0.875
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.greater.1	non-gamified.Apprentice	5	3.66	5.20	26.0	11.0	1.04	0.196
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.greater.2	non-gamified.Master	3	1.39	3.33	10.0	11.0	1.04	0.196
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.two.sided.1	non-gamified.Apprentice	5	3.66	5.20	26.0	11.0	1.04	0.393
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.two.sided.2	non-gamified.Master	3	1.39	3.33	10.0	11.0	1.04	0.393
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.less.1	non-gamified.Apprentice	5	3.66	6.30	31.5	16.5	-0.52	0.319
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.less.2	ont-gamified.Apprentice	8	5.06	7.44	59.5	16.5	-0.52	0.319
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.greater.1	non-gamified.Apprentice	5	3.66	6.30	31.5	16.5	-0.52	0.699
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.greater.2	ont-gamified.Apprentice	8	5.06	7.44	59.5	16.5	-0.52	0.699
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.two.sided.1	non-gamified.Apprentice	5	3.66	6.30	31.5	16.5	-0.52	0.643
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.two.sided.2	ont-gamified.Apprentice	8	5.06	7.44	59.5	16.5	-0.52	0.643
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Master.less.1	non-gamified.Apprentice	5	3.66	5.20	26.0	11.0	0.24	0.635
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Master.less.2	ont-gamified.Master	4	0.70	4.75	19.0	11.0	0.24	0.635
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Master.greater.1	non-gamified.Apprentice	5	3.66	5.20	26.0	11.0	0.24	0.452
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Master.greater.2	ont-gamified.Master	4	0.70	4.75	19.0	11.0	0.24	0.452
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Master.two.sided.1	non-gamified.Apprentice	5	3.66	5.20	26.0	11.0	0.24	0.905
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Master.two.sided.2	ont-gamified.Master	4	0.70	4.75	19.0	11.0	0.24	0.905
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.less.1	non-gamified.Master	3	1.39	3.67	11.0	5.0	-1.44	0.085
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.less.2	ont-gamified.Apprentice	8	5.06	6.88	55.0	5.0	-1.44	0.085
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.greater.1	non-gamified.Master	3	1.39	3.67	11.0	5.0	-1.44	0.927
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.greater.2	ont-gamified.Apprentice	8	5.06	6.88	55.0	5.0	-1.44	0.927
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.two.sided.1	non-gamified.Master	3	1.39	3.67	11.0	5.0	-1.44	0.170
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.two.sided.2	ont-gamified.Apprentice	8	5.06	6.88	55.0	5.0	-1.44	0.170
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.less.1	non-gamified.Master	3	1.39	4.17	12.5	6.5	0.18	0.629
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.less.2	ont-gamified.Master	4	0.70	3.88	15.5	6.5	0.18	0.629
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.greater.1	non-gamified.Master	3	1.39	4.17	12.5	6.5	0.18	0.486
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.greater.2	ont-gamified.Master	4	0.70	3.88	15.5	6.5	0.18	0.486
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.two.sided.1	non-gamified.Master	3	1.39	4.17	12.5	6.5	0.18	0.943
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.two.sided.2	ont-gamified.Master	4	0.70	3.88	15.5	6.5	0.18	0.943
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.less.1	ont-gamified.Apprentice	8	5.06	7.00	56.0	20.0	0.68	0.758
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.less.2	ont-gamified.Master	4	0.70	5.50	22.0	20.0	0.68	0.758
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.greater.1	ont-gamified.Apprentice	8	5.06	7.00	56.0	20.0	0.68	0.273

Table 3: *(continued)*

Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.greater.2							
ont-gamified.Master	4	0.70	5.50	22.0	20.0	0.68	0.273

Table 3: *(continued)*

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.two.sided.1	ont-gamified.Apprentice	8	5.06	7.00	56.0	20.0	0.68	0.543
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.two.sided.2	ont-gamified.Master	4	0.70	5.50	22.0	20.0	0.68	0.543

Signif. codes: 0 "**" 0.01 "*" 0.05