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	14.009	0.089	0.766	
gain.theta:CLRole	1	68.029	0.431	0.511	
gain.theta:Type:CLRole	1	36.434	0.231	0.631	
gain.theta:Residuals	39	6503.528			

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	26	0.01	21.54	560	209	-0.30	0.389	0
gain.theta.Type.non-gamified:ont-gamified.less.2	ont-gamified	17	0.05	22.71	386	209	-0.30	0.389	0
gain.theta.Type.non-gamified:ont-gamified.greater.1	non-gamified	26	0.01	21.54	560	209	-0.30	0.621	0
gain.theta.Type.non-gamified:ont-gamified.greater.2	ont-gamified	17	0.05	22.71	386	209	-0.30	0.621	0
gain.theta.Type.non-gamified:ont-gamified.two.sided.1	non-gamified	26	0.01	21.54	560	209	-0.30	0.778	0
gain.theta.Type.non-gamified:ont-gamified.two.sided.2	ont-gamified	17	0.05	22.71	386	209	-0.30	0.778	0
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.less.1	non-gamified.Apprentice	18	0.01	13.61	245	74	0.11	0.554	0
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.less.2	non-gamified.Master	8	0.00	13.25	106	74	0.11	0.554	0
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.greater.1	non-gamified.Apprentice	18	0.01	13.61	245	74	0.11	0.468	0
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.greater.2	non-gamified.Master	8	0.00	13.25	106	74	0.11	0.468	0
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.two.sided.1	non-gamified.Apprentice	18	0.01	13.61	245	74	0.11	0.935	0
gain.theta.Type:CLRole.non-gamified.Apprentice:non-gamified.Master.two.sided.2	non-gamified.Master	8	0.00	13.25	106	74	0.11	0.935	0
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.less.1	non-gamified.Apprentice	18	0.01	14.94	269	98	-0.42	0.346	0
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.less.2	ont-gamified.Apprentice	12	0.05	16.33	196	98	-0.42	0.346	0
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.greater.1	non-gamified.Apprentice	18	0.01	14.94	269	98	-0.42	0.669	0
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.greater.2	ont-gamified.Apprentice	12	0.05	16.33	196	98	-0.42	0.669	0
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.two.sided.1	non-gamified.Apprentice	18	0.01	14.94	269	98	-0.42	0.692	0
gain.theta.Type:CLRole.non-gamified.Apprentice:ont-gamified.Apprentice.two.sided.2	ont-gamified.Apprentice	12	0.05	16.33	196	98	-0.42	0.692	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.less.1	non-gamified.Master	18	0.01	12.33	222	51	0.45	0.681	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.less.2	ont-gamified.Master	5	-0.09	10.80	54	51	0.45	0.681	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.greater.1	non-gamified.Master	18	0.01	12.33	222	51	0.45	0.346	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.greater.2	ont-gamified.Master	5	-0.09	10.80	54	51	0.45	0.346	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.two.sided.1	non-gamified.Master	18	0.01	12.33	222	51	0.45	0.691	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Master.two.sided.2	ont-gamified.Master	5	-0.09	10.80	54	51	0.45	0.691	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.less.1	non-gamified.Master	8	0.00	9.00	72	36	-0.93	0.192	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.less.2	ont-gamified.Apprentice	12	0.05	11.50	138	36	-0.93	0.192	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.greater.1	non-gamified.Master	8	0.00	9.00	72	36	-0.93	0.828	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.greater.2	ont-gamified.Apprentice	12	0.05	11.50	138	36	-0.93	0.828	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.two.sided.1	non-gamified.Master	8	0.00	9.00	72	36	-0.93	0.384	0
gain.theta.Type:CLRole.non-gamified.Master:ont-gamified.Apprentice.two.sided.2	ont-gamified.Apprentice	12	0.05	11.50	138	36	-0.93	0.384	0
gain.theta.Type:CLRole.ont-gamified.Master:ont-gamified.Master.less.1	non-gamified.Master	8	0.00	7.50	60	24	0.59	0.738	0
gain.theta.Type:CLRole.ont-gamified.Master:ont-gamified.Master.less.2	ont-gamified.Master	5	-0.09	6.20	31	24	0.59	0.738	0
gain.theta.Type:CLRole.ont-gamified.Master:ont-gamified.Master.greater.1	non-gamified.Master	8	0.00	7.50	60	24	0.59	0.311	0
gain.theta.Type:CLRole.ont-gamified.Master:ont-gamified.Master.greater.2	ont-gamified.Master	5	-0.09	6.20	31	24	0.59	0.311	0
gain.theta.Type:CLRole.ont-gamified.Master:ont-gamified.Master.two.sided.1	non-gamified.Master	8	0.00	7.50	60	24	0.59	0.622	0
gain.theta.Type:CLRole.ont-gamified.Master:ont-gamified.Master.two.sided.2	ont-gamified.Master	5	-0.09	6.20	31	24	0.59	0.622	0
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.less.1	ont-gamified.Apprentice	12	0.05	9.42	113	35	0.53	0.713	0
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.less.2	ont-gamified.Master	5	-0.09	8.00	40	35	0.53	0.713	0
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.greater.1	ont-gamified.Apprentice	12	0.05	9.42	113	35	0.53	0.323	0

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	5	−0.09	8.00	40	35	0.53	0.323	0

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	12	0.05	9.42	113	35	0.53	0.646	0
gain.theta.Type:CLRole.ont-gamified.Apprentice:ont-gamified.Master.two.sided.2	ont-gamified.Master	5	−0.09	8.00	40	35	0.53	0.646	0

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