## Summary of nonparametric statistics analysis for the latent trait estimates of Intrinsic Motivation in the pilot study for signed up students

## September 30, 2018

Table 1: Summary of Scheirer-Ray-Hare results for the latent trait estimates of Intrinsic Motivation in the pilot study for signed up students

	Df	Sum Sq	Н	p.value	Sig
Type					
Type:Type	1	420.000	5.419	0.020	*
Type:CLRole	1	17.182	0.222	0.638	
Type:Type:CLRole	1	4.735	0.061	0.805	
Type:Residuals	26	1805.583			

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

Table 2: Descriptive statistic of the pair wilcoxon analysis for the latent trait estimates of Intrinsic Motivation in the pilot study for signed up students

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	14	-0.28	11.50	161	56	-2.33	0.010	0.425	medium
Type.less.2	ont-gamified	16	0.24	19.00	304	56	-2.33	0.010	0.425	medium
Type.two.sided.1	non-gamified	14	-0.28	11.50	161	56	-2.33	0.019	0.425	medium
Type.two.sided.2	ont-gamified	16	0.24	19.00	304	56	-2.33	0.019	0.425	medium
Type:CLRole.less.1	non-gamified.Apprentice	12	-0.45	9.75	117	39	-1.91	0.030	0.389	medium
Type:CLRole.less.2	ont-gamified.Apprentice	12	0.24	15.25	183	39	-1.91	0.030	0.389	medium

Table 3: Full descriptive statistic of the pair wilcoxon analysis for the latent trait estimates of Intrinsic Motivation in the pilot study for signed up students

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	14	-0.28	11.50	161	56	-2.33	0.010	0.425	medium
Type.less.2	ont-gamified	16	0.24	19.00	304	56	-2.33	0.010	0.425	medium
Type.greater.1	non-gamified	14	-0.28	11.50	161	56	-2.33	0.991	0.425	medium
Type.greater.2	ont-gamified	16	0.24	19.00	304	56	-2.33	0.991	0.425	medium
Type.two.sided.1	non-gamified	14	-0.28	11.50	161	56	-2.33	0.019	0.425	medium
Type.two.sided.2	ont-gamified	16	0.24	19.00	304	56	-2.33	0.019	0.425	medium
Type:CLRole.less.1	non-gamified.Apprentice	12	-0.45	7.33	88	10	-0.37	0.396	0.098	none
Type:CLRole.less.2	non-gamified.Master	2	-0.23	8.50	17	10	-0.37	0.396	0.098	none
Type:CLRole.greater.1	non-gamified.Apprentice	12	-0.45	7.33	88	10	-0.37	0.670	0.098	none
Type:CLRole.greater.2	non-gamified.Master	2	-0.23	8.50	17	10	-0.37	0.670	0.098	none
Type:CLRole.two.sided.1	non-gamified.Apprentice	12	-0.45	7.33	88	10	-0.37	0.791	0.098	none
Type:CLRole.two.sided.2	non-gamified.Master	2	-0.23	8.50	17	10	-0.37	0.791	0.098	none
Type:CLRole.less.11	non-gamified.Apprentice	12	-0.45	9.75	117	39	-1.91	0.030	0.389	medium
Type:CLRole.less.21	ont-gamified. Apprentice	12	0.24	15.25	183	39	-1.91	0.030	0.389	medium
Type:CLRole.greater.11	non-gamified.Apprentice	12	-0.45	9.75	117	39	-1.91	0.974	0.389	medium
Type:CLRole.greater.21	ont-gamified. Apprentice	12	0.24	15.25	183	39	-1.91	0.974	0.389	medium
Type:CLRole.two.sided.11	non-gamified.Apprentice	12	-0.45	9.75	117	39	-1.91	0.060	0.389	medium
Type:CLRole.two.sided.21	ont-gamified.Apprentice	12	0.24	15.25	183	39	-1.91	0.060	0.389	medium
Type:CLRole.less.12	non-gamified.Apprentice	12	-0.45	7.33	88	10	-1.70	0.052	0.424	medium
Type:CLRole.less.22	ont-gamified.Master	4	0.70	12.00	48	10	-1.70	0.052	0.424	medium
Type:CLRole.greater.12	non-gamified.Apprentice	12	-0.45	7.33	88	10	-1.70	0.961	0.424	medium
Type:CLRole.greater.22	ont-gamified.Master	4	0.70	12.00	48	10	-1.70	0.961	0.424	medium
Type:CLRole.two.sided.12	non-gamified.Apprentice	12	-0.45	7.33	88	10	-1.70	0.103	0.424	medium
Type:CLRole.two.sided.22	ont-gamified.Master	4	0.70	12.00	48	10	-1.70	0.103	0.424	medium
Type:CLRole.less.13	non-gamified.Master	2	-0.23	4.50	9	6	-1.10	0.176	0.293	$\operatorname{small}$
Type:CLRole.less.23	ont-gamified. Apprentice	12	0.24	8.00	96	6	-1.10	0.176	0.293	$\operatorname{small}$
Type:CLRole.greater.13	non-gamified.Master	2	-0.23	4.50	9	6	-1.10	0.868	0.293	$\operatorname{small}$
Type:CLRole.greater.23	ont-gamified. Apprentice	12	0.24	8.00	96	6	-1.10	0.868	0.293	$\operatorname{small}$
Type:CLRole.two.sided.13	non-gamified.Master	2	-0.23	4.50	9	6	-1.10	0.352	0.293	$\operatorname{small}$
Type:CLRole.two.sided.23	ont-gamified. Apprentice	12	0.24	8.00	96	6	-1.10	0.352	0.293	$\operatorname{small}$
Type:CLRole.less.14	non-gamified.Master	2	-0.23	2.00	4	1	-1.39	0.133	0.567	large
Type:CLRole.less.24	ont-gamified.Master	4	0.70	4.25	17	1	-1.39	0.133	0.567	large
Type:CLRole.greater.14	non-gamified.Master	2	-0.23	2.00	4	1	-1.39	0.933	0.567	large
Type:CLRole.greater.24	ont-gamified.Master	4	0.70	4.25	17	1	-1.39	0.933	0.567	large
Type:CLRole.two.sided.14	non-gamified.Master	2	-0.23	2.00	4	1	-1.39	0.267	0.567	large
Type:CLRole.two.sided.24	ont-gamified.Master	4	0.70	4.25	17	1	-1.39	0.267	0.567	large
Type:CLRole.less.15	ont-gamified.Apprentice	12	0.24	8.08	97	19	-0.61	0.299	0.152	$\operatorname{small}$
Type:CLRole.less.25	ont-gamified.Master	4	0.70	9.75	39	19	-0.61	0.299	0.152	$\operatorname{small}$
Type:CLRole.greater.15	ont-gamified.Apprentice	12	0.24	8.08	97	19	-0.61	0.740	0.152	$\operatorname{small}$
Type:CLRole.greater.25	ont-gamified.Master	4	0.70	9.75	39	19	-0.61	0.740	0.152	$\operatorname{small}$

## Table 3: (continued)

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	ont-gamified.Apprentice	12	0.24	8.08	97	19	-0.61	0.599	0.152	small
Type:CLRole.two.sided.25	ont-gamified.Master	4	0.70	9.75	39	19	-0.61	0.599	0.152	small