

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

October 1, 2018

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

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	207.265	0.728	0.394	
Type:CLRole	1	39.526	0.139	0.710	
Type:Type:CLRole	1	259.282	0.910	0.340	
Type:Residuals	54	15731.927			

Signif. codes: 0 “\*\*\*” 0.01 “\*” 0.05

Table 2: Full descriptive statistic of the pair wilcoxon analysis for the latent trait estimates of Level of Motivation in the second study for signed up students

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	34	-0.05	27.91	949.0	354.0	-0.85	0.199	0.112	small
Type.less.2	ont-gamified	24	-0.02	31.75	762.0	354.0	-0.85	0.199	0.112	small
Type.greater.1	non-gamified	34	-0.05	27.91	949.0	354.0	-0.85	0.803	0.112	small
Type.greater.2	ont-gamified	24	-0.02	31.75	762.0	354.0	-0.85	0.803	0.112	small
Type.two.sided.1	non-gamified	34	-0.05	27.91	949.0	354.0	-0.85	0.399	0.112	small
Type.two.sided.2	ont-gamified	24	-0.02	31.75	762.0	354.0	-0.85	0.399	0.112	small
Type.CLRole.less.1	non-gamified.Apprentice	23	-0.25	16.59	381.5	105.5	-0.77	0.225	0.133	small
Type.CLRole.less.2	non-gamified.Master	11	0.16	19.41	213.5	105.5	-0.77	0.225	0.133	small
Type.CLRole.greater.1	non-gamified.Apprentice	23	-0.25	16.59	381.5	105.5	-0.77	0.780	0.133	small
Type.CLRole.greater.2	non-gamified.Master	11	0.16	19.41	213.5	105.5	-0.77	0.780	0.133	small
Type.CLRole.two.sided.1	non-gamified.Apprentice	23	-0.25	16.59	381.5	105.5	-0.77	0.451	0.133	small
Type.CLRole.two.sided.2	non-gamified.Master	11	0.16	19.41	213.5	105.5	-0.77	0.451	0.133	small
Type.CLRole.less.11	non-gamified.Apprentice	23	-0.25	18.07	415.5	139.5	-1.27	0.104	0.204	small
Type.CLRole.less.21	ont-gamified.Apprentice	16	0.01	22.78	364.5	139.5	-1.27	0.104	0.204	small
Type.CLRole.greater.11	non-gamified.Apprentice	23	-0.25	18.07	415.5	139.5	-1.27	0.898	0.204	small
Type.CLRole.greater.21	ont-gamified.Apprentice	16	0.01	22.78	364.5	139.5	-1.27	0.898	0.204	small
Type.CLRole.two.sided.11	non-gamified.Apprentice	23	-0.25	18.07	415.5	139.5	-1.27	0.209	0.204	small
Type.CLRole.two.sided.21	ont-gamified.Apprentice	16	0.01	22.78	364.5	139.5	-1.27	0.209	0.204	small
Type.CLRole.less.12	non-gamified.Apprentice	23	-0.25	15.46	355.5	79.5	-0.56	0.294	0.101	small
Type.CLRole.less.22	ont-gamified.Master	8	-0.05	17.56	140.5	79.5	-0.56	0.294	0.101	small
Type.CLRole.greater.12	non-gamified.Apprentice	23	-0.25	15.46	355.5	79.5	-0.56	0.714	0.101	small
Type.CLRole.greater.22	ont-gamified.Master	8	-0.05	17.56	140.5	79.5	-0.56	0.714	0.101	small
Type.CLRole.two.sided.12	non-gamified.Apprentice	23	-0.25	15.46	355.5	79.5	-0.56	0.587	0.101	small
Type.CLRole.two.sided.22	ont-gamified.Master	8	-0.05	17.56	140.5	79.5	-0.56	0.587	0.101	small
Type.CLRole.less.13	non-gamified.Master	11	0.16	13.68	150.5	84.5	-0.17	0.437	0.033	none
Type.CLRole.less.23	ont-gamified.Apprentice	16	0.01	14.22	227.5	84.5	-0.17	0.437	0.033	none
Type.CLRole.greater.13	non-gamified.Master	11	0.16	13.68	150.5	84.5	-0.17	0.572	0.033	none
Type.CLRole.greater.23	ont-gamified.Apprentice	16	0.01	14.22	227.5	84.5	-0.17	0.572	0.033	none
Type.CLRole.two.sided.13	non-gamified.Master	11	0.16	13.68	150.5	84.5	-0.17	0.875	0.033	none
Type.CLRole.two.sided.23	ont-gamified.Apprentice	16	0.01	14.22	227.5	84.5	-0.17	0.875	0.033	none
Type.CLRole.less.14	non-gamified.Master	11	0.16	10.59	116.5	50.5	0.54	0.707	0.123	small
Type.CLRole.less.24	ont-gamified.Master	8	-0.05	9.19	73.5	50.5	0.54	0.707	0.123	small
Type.CLRole.greater.14	non-gamified.Master	11	0.16	10.59	116.5	50.5	0.54	0.307	0.123	small
Type.CLRole.greater.24	ont-gamified.Master	8	-0.05	9.19	73.5	50.5	0.54	0.307	0.123	small
Type.CLRole.two.sided.14	non-gamified.Master	11	0.16	10.59	116.5	50.5	0.54	0.613	0.123	small
Type.CLRole.two.sided.24	ont-gamified.Master	8	-0.05	9.19	73.5	50.5	0.54	0.613	0.123	small
Type.CLRole.less.15	ont-gamified.Apprentice	16	0.01	12.94	207.0	71.0	0.43	0.668	0.088	none
Type.CLRole.less.25	ont-gamified.Master	8	-0.05	11.62	93.0	71.0	0.43	0.668	0.088	none
Type.CLRole.greater.15	ont-gamified.Apprentice	16	0.01	12.94	207.0	71.0	0.43	0.343	0.088	none
Type.CLRole.greater.25	ont-gamified.Master	8	-0.05	11.62	93.0	71.0	0.43	0.343	0.088	none

Table 2: *(continued)*

Group		N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	ont-gamified.Apprentice	16	0.01	12.94	207.0	71.0	0.43	0.686	0.088	none
Type:CLRole.two.sided.25	ont-gamified.Master	8	−0.05	11.62	93.0	71.0	0.43	0.686	0.088	none