

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

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

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	122.415	0.432	0.511	
Type:CLRole	1	184.844	0.652	0.419	
Type:Type:CLRole	1	18.694	0.066	0.797	
Type:Residuals	54	15832.047			

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

Table 2: Full descriptive statistic of the pair wilcoxon analysis for the latent trait estimates of Relevance 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	28.28	961.5	366.5	-0.66	0.258	0.086	none
Type.less.2	ont-gamified	24	0.07	31.23	749.5	366.5	-0.66	0.258	0.086	none
Type.greater.1	non-gamified	34	-0.05	28.28	961.5	366.5	-0.66	0.744	0.086	none
Type.greater.2	ont-gamified	24	0.07	31.23	749.5	366.5	-0.66	0.744	0.086	none
Type.two.sided.1	non-gamified	34	-0.05	28.28	961.5	366.5	-0.66	0.517	0.086	none
Type.two.sided.2	ont-gamified	24	0.07	31.23	749.5	366.5	-0.66	0.517	0.086	none
Type:CLRole.less.1	non-gamified.Apprentice	23	-0.11	16.52	380.0	104.0	-0.83	0.208	0.143	small
Type:CLRole.less.2	non-gamified.Master	11	0.01	19.55	215.0	104.0	-0.83	0.208	0.143	small
Type:CLRole.greater.1	non-gamified.Apprentice	23	-0.11	16.52	380.0	104.0	-0.83	0.797	0.143	small
Type:CLRole.greater.2	non-gamified.Master	11	0.01	19.55	215.0	104.0	-0.83	0.797	0.143	small
Type:CLRole.two.sided.1	non-gamified.Apprentice	23	-0.11	16.52	380.0	104.0	-0.83	0.416	0.143	small
Type:CLRole.two.sided.2	non-gamified.Master	11	0.01	19.55	215.0	104.0	-0.83	0.416	0.143	small
Type:CLRole.less.11	non-gamified.Apprentice	23	-0.11	19.22	442.0	166.0	-0.52	0.307	0.083	none
Type:CLRole.less.21	ont-gamified.Apprentice	16	0.07	21.12	338.0	166.0	-0.52	0.307	0.083	none
Type:CLRole.greater.11	non-gamified.Apprentice	23	-0.11	19.22	442.0	166.0	-0.52	0.698	0.083	none
Type:CLRole.greater.21	ont-gamified.Apprentice	16	0.07	21.12	338.0	166.0	-0.52	0.698	0.083	none
Type:CLRole.two.sided.11	non-gamified.Apprentice	23	-0.11	19.22	442.0	166.0	-0.52	0.615	0.083	none
Type:CLRole.two.sided.21	ont-gamified.Apprentice	16	0.07	21.12	338.0	166.0	-0.52	0.615	0.083	none
Type:CLRole.less.12	non-gamified.Apprentice	23	-0.11	14.98	344.5	68.5	-1.06	0.150	0.191	small
Type:CLRole.less.22	ont-gamified.Master	8	0.07	18.94	151.5	68.5	-1.06	0.150	0.191	small
Type:CLRole.greater.12	non-gamified.Apprentice	23	-0.11	14.98	344.5	68.5	-1.06	0.856	0.191	small
Type:CLRole.greater.22	ont-gamified.Master	8	0.07	18.94	151.5	68.5	-1.06	0.856	0.191	small
Type:CLRole.two.sided.12	non-gamified.Apprentice	23	-0.11	14.98	344.5	68.5	-1.06	0.299	0.191	small
Type:CLRole.two.sided.22	ont-gamified.Master	8	0.07	18.94	151.5	68.5	-1.06	0.299	0.191	small
Type:CLRole.less.13	non-gamified.Master	11	0.01	14.18	156.0	90.0	0.10	0.543	0.019	none
Type:CLRole.less.23	ont-gamified.Apprentice	16	0.07	13.88	222.0	90.0	0.10	0.543	0.019	none
Type:CLRole.greater.13	non-gamified.Master	11	0.01	14.18	156.0	90.0	0.10	0.466	0.019	none
Type:CLRole.greater.23	ont-gamified.Apprentice	16	0.07	13.88	222.0	90.0	0.10	0.466	0.019	none
Type:CLRole.two.sided.13	non-gamified.Master	11	0.01	14.18	156.0	90.0	0.10	0.932	0.019	none
Type:CLRole.two.sided.23	ont-gamified.Apprentice	16	0.07	13.88	222.0	90.0	0.10	0.932	0.019	none
Type:CLRole.less.14	non-gamified.Master	11	0.01	9.82	108.0	42.0	-0.17	0.443	0.038	none
Type:CLRole.less.24	ont-gamified.Master	8	0.07	10.25	82.0	42.0	-0.17	0.443	0.038	none
Type:CLRole.greater.14	non-gamified.Master	11	0.01	9.82	108.0	42.0	-0.17	0.572	0.038	none
Type:CLRole.greater.24	ont-gamified.Master	8	0.07	10.25	82.0	42.0	-0.17	0.572	0.038	none
Type:CLRole.two.sided.14	non-gamified.Master	11	0.01	9.82	108.0	42.0	-0.17	0.886	0.038	none
Type:CLRole.two.sided.24	ont-gamified.Master	8	0.07	10.25	82.0	42.0	-0.17	0.886	0.038	none
Type:CLRole.less.15	ont-gamified.Apprentice	16	0.07	12.44	199.0	63.0	-0.06	0.482	0.013	none
Type:CLRole.less.25	ont-gamified.Master	8	0.07	12.62	101.0	63.0	-0.06	0.482	0.013	none
Type:CLRole.greater.15	ont-gamified.Apprentice	16	0.07	12.44	199.0	63.0	-0.06	0.530	0.013	none
Type:CLRole.greater.25	ont-gamified.Master	8	0.07	12.62	101.0	63.0	-0.06	0.530	0.013	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	0.07	12.44	199.0	63.0	−0.06	0.964	0.013	none
Type:CLRole.two.sided.25	ont-gamified.Master	8	0.07	12.62	101.0	63.0	−0.06	0.964	0.013	none