

# Summary of nonparametric statistics analysis for the latent trait estimates of Satisfaction in the second study for students with effective participation

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Table 1: Summary of Scheirer-Ray-Hare results for the latent trait estimates of Satisfaction in the second study for students with effective participation

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	23.395	0.107	0.744	
Type:CLRole	1	36.149	0.165	0.685	
Type:Type:CLRole	1	205.662	0.939	0.332	
Type:Residuals	47	10682.794			

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

Table 2: Full descriptive statistic of the pair wilcoxon analysis for the latent trait estimates of Satisfaction in the second study for students with effective participation

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	30	0.16	26.57	797.0	332.0	0.33	0.629	0.046	none
Type.less.2	ont-gamified	21	0.33	25.19	529.0	332.0	0.33	0.629	0.046	none
Type.greater.1	non-gamified	30	0.16	26.57	797.0	332.0	0.33	0.375	0.046	none
Type.greater.2	ont-gamified	21	0.33	25.19	529.0	332.0	0.33	0.375	0.046	none
Type.two.sided.1	non-gamified	30	0.16	26.57	797.0	332.0	0.33	0.750	0.046	none
Type.two.sided.2	ont-gamified	21	0.33	25.19	529.0	332.0	0.33	0.750	0.046	none
Type.CLRole.less.1	non-gamified.Apprentice	19	-0.01	15.03	285.5	95.5	-0.39	0.355	0.071	none
Type.CLRole.less.2	non-gamified.Master	11	0.33	16.32	179.5	95.5	-0.39	0.355	0.071	none
Type.CLRole.greater.1	non-gamified.Apprentice	19	-0.01	15.03	285.5	95.5	-0.39	0.653	0.071	none
Type.CLRole.greater.2	non-gamified.Master	11	0.33	16.32	179.5	95.5	-0.39	0.653	0.071	none
Type.CLRole.two.sided.1	non-gamified.Apprentice	19	-0.01	15.03	285.5	95.5	-0.39	0.709	0.071	none
Type.CLRole.two.sided.2	non-gamified.Master	11	0.33	16.32	179.5	95.5	-0.39	0.709	0.071	none
Type.CLRole.less.11	non-gamified.Apprentice	19	-0.01	16.08	305.5	115.5	-0.31	0.389	0.055	none
Type.CLRole.less.21	ont-gamified.Apprentice	13	0.33	17.12	222.5	115.5	-0.31	0.389	0.055	none
Type.CLRole.greater.11	non-gamified.Apprentice	19	-0.01	16.08	305.5	115.5	-0.31	0.625	0.055	none
Type.CLRole.greater.21	ont-gamified.Apprentice	13	0.33	17.12	222.5	115.5	-0.31	0.625	0.055	none
Type.CLRole.two.sided.11	non-gamified.Apprentice	19	-0.01	16.08	305.5	115.5	-0.31	0.776	0.055	none
Type.CLRole.two.sided.21	ont-gamified.Apprentice	13	0.33	17.12	222.5	115.5	-0.31	0.776	0.055	none
Type.CLRole.less.12	non-gamified.Apprentice	19	-0.01	14.82	281.5	91.5	0.83	0.796	0.159	small
Type.CLRole.less.22	ont-gamified.Master	8	-0.01	12.06	96.5	91.5	0.83	0.796	0.159	small
Type.CLRole.greater.12	non-gamified.Apprentice	19	-0.01	14.82	281.5	91.5	0.83	0.212	0.159	small
Type.CLRole.greater.22	ont-gamified.Master	8	-0.01	12.06	96.5	91.5	0.83	0.212	0.159	small
Type.CLRole.two.sided.12	non-gamified.Apprentice	19	-0.01	14.82	281.5	91.5	0.83	0.424	0.159	small
Type.CLRole.two.sided.22	ont-gamified.Master	8	-0.01	12.06	96.5	91.5	0.83	0.424	0.159	small
Type.CLRole.less.13	non-gamified.Master	11	0.33	12.27	135.0	69.0	-0.15	0.449	0.030	none
Type.CLRole.less.23	ont-gamified.Apprentice	13	0.33	12.69	165.0	69.0	-0.15	0.449	0.030	none
Type.CLRole.greater.13	non-gamified.Master	11	0.33	12.27	135.0	69.0	-0.15	0.562	0.030	none
Type.CLRole.greater.23	ont-gamified.Apprentice	13	0.33	12.69	165.0	69.0	-0.15	0.562	0.030	none
Type.CLRole.two.sided.13	non-gamified.Master	11	0.33	12.27	135.0	69.0	-0.15	0.898	0.030	none
Type.CLRole.two.sided.23	ont-gamified.Apprentice	13	0.33	12.69	165.0	69.0	-0.15	0.898	0.030	none
Type.CLRole.less.14	non-gamified.Master	11	0.33	11.09	122.0	56.0	1.00	0.841	0.229	small
Type.CLRole.less.24	ont-gamified.Master	8	-0.01	8.50	68.0	56.0	1.00	0.841	0.229	small
Type.CLRole.greater.14	non-gamified.Master	11	0.33	11.09	122.0	56.0	1.00	0.169	0.229	small
Type.CLRole.greater.24	ont-gamified.Master	8	-0.01	8.50	68.0	56.0	1.00	0.169	0.229	small
Type.CLRole.two.sided.14	non-gamified.Master	11	0.33	11.09	122.0	56.0	1.00	0.337	0.229	small
Type.CLRole.two.sided.24	ont-gamified.Master	8	-0.01	8.50	68.0	56.0	1.00	0.337	0.229	small
Type.CLRole.less.15	ont-gamified.Apprentice	13	0.33	11.92	155.0	64.0	0.88	0.810	0.192	small
Type.CLRole.less.25	ont-gamified.Master	8	-0.01	9.50	76.0	64.0	0.88	0.810	0.192	small
Type.CLRole.greater.15	ont-gamified.Apprentice	13	0.33	11.92	155.0	64.0	0.88	0.199	0.192	small
Type.CLRole.greater.25	ont-gamified.Master	8	-0.01	9.50	76.0	64.0	0.88	0.199	0.192	small

Table 2: *(continued)*

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	ont-gamified.Apprentice	13	0.33	11.92	155.0	64.0	0.88	0.398	0.192	small
Type:CLRole.two.sided.25	ont-gamified.Master	8	−0.01	9.50	76.0	64.0	0.88	0.398	0.192	small