

Summary of nonparametric statistics analysis for the latent trait estimates of Attention in the third study for students with effective participation

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

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	94.855	0.577	0.448	
Type:CLRole	1	12.076	0.073	0.786	
Type:Type:CLRole	1	51.842	0.315	0.574	
Type:Residuals	40	6911.728			

Signif. codes: 0 “***” 0.01 “**” 0.05

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

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	ont-gamified	25	-0.07	21.22	530.5	205.5	-0.76	0.228	0.115	small
Type.less.2	w/o-gamified	19	0.09	24.18	459.5	205.5	-0.76	0.228	0.115	small
Type.greater.1	ont-gamified	25	-0.07	21.22	530.5	205.5	-0.76	0.776	0.115	small
Type.greater.2	w/o-gamified	19	0.09	24.18	459.5	205.5	-0.76	0.776	0.115	small
Type.two.sided.1	ont-gamified	25	-0.07	21.22	530.5	205.5	-0.76	0.455	0.115	small
Type.two.sided.2	w/o-gamified	19	0.09	24.18	459.5	205.5	-0.76	0.455	0.115	small
Type.CLRole.less.1	ont-gamified.Apprentice	16	-0.28	12.22	195.5	59.5	-0.71	0.248	0.142	small
Type.CLRole.less.2	ont-gamified.Master	9	-0.07	14.39	129.5	59.5	-0.71	0.248	0.142	small
Type.CLRole.greater.1	ont-gamified.Apprentice	16	-0.28	12.22	195.5	59.5	-0.71	0.761	0.142	small
Type.CLRole.greater.2	ont-gamified.Master	9	-0.07	14.39	129.5	59.5	-0.71	0.761	0.142	small
Type.CLRole.two.sided.1	ont-gamified.Apprentice	16	-0.28	12.22	195.5	59.5	-0.71	0.495	0.142	small
Type.CLRole.two.sided.2	ont-gamified.Master	9	-0.07	14.39	129.5	59.5	-0.71	0.495	0.142	small
Type.CLRole.less.11	ont-gamified.Apprentice	16	-0.28	13.75	220.0	84.0	-0.88	0.196	0.163	small
Type.CLRole.less.21	w/o-gamified.Apprentice	13	0.09	16.54	215.0	84.0	-0.88	0.196	0.163	small
Type.CLRole.greater.11	ont-gamified.Apprentice	16	-0.28	13.75	220.0	84.0	-0.88	0.810	0.163	small
Type.CLRole.greater.21	w/o-gamified.Apprentice	13	0.09	16.54	215.0	84.0	-0.88	0.810	0.163	small
Type.CLRole.two.sided.11	ont-gamified.Apprentice	16	-0.28	13.75	220.0	84.0	-0.88	0.391	0.163	small
Type.CLRole.two.sided.21	w/o-gamified.Apprentice	13	0.09	16.54	215.0	84.0	-0.88	0.391	0.163	small
Type.CLRole.less.12	ont-gamified.Apprentice	16	-0.28	11.16	178.5	42.5	-0.41	0.353	0.087	none
Type.CLRole.less.22	w/o-gamified.Master	6	-0.12	12.42	74.5	42.5	-0.41	0.353	0.087	none
Type.CLRole.greater.12	ont-gamified.Apprentice	16	-0.28	11.16	178.5	42.5	-0.41	0.660	0.087	none
Type.CLRole.greater.22	w/o-gamified.Master	6	-0.12	12.42	74.5	42.5	-0.41	0.660	0.087	none
Type.CLRole.two.sided.12	ont-gamified.Apprentice	16	-0.28	11.16	178.5	42.5	-0.41	0.706	0.087	none
Type.CLRole.two.sided.22	w/o-gamified.Master	6	-0.12	12.42	74.5	42.5	-0.41	0.706	0.087	none
Type.CLRole.less.13	ont-gamified.Master	9	-0.07	10.89	98.0	53.0	-0.37	0.365	0.079	none
Type.CLRole.less.23	w/o-gamified.Apprentice	13	0.09	11.92	155.0	53.0	-0.37	0.365	0.079	none
Type.CLRole.greater.13	ont-gamified.Master	9	-0.07	10.89	98.0	53.0	-0.37	0.647	0.079	none
Type.CLRole.greater.23	w/o-gamified.Apprentice	13	0.09	11.92	155.0	53.0	-0.37	0.647	0.079	none
Type.CLRole.two.sided.13	ont-gamified.Master	9	-0.07	10.89	98.0	53.0	-0.37	0.730	0.079	none
Type.CLRole.two.sided.23	w/o-gamified.Apprentice	13	0.09	11.92	155.0	53.0	-0.37	0.730	0.079	none
Type.CLRole.less.14	ont-gamified.Master	9	-0.07	7.89	71.0	26.0	-0.12	0.466	0.031	none
Type.CLRole.less.24	w/o-gamified.Master	6	-0.12	8.17	49.0	26.0	-0.12	0.466	0.031	none
Type.CLRole.greater.14	ont-gamified.Master	9	-0.07	7.89	71.0	26.0	-0.12	0.556	0.031	none
Type.CLRole.greater.24	w/o-gamified.Master	6	-0.12	8.17	49.0	26.0	-0.12	0.556	0.031	none
Type.CLRole.two.sided.14	ont-gamified.Master	9	-0.07	7.89	71.0	26.0	-0.12	0.931	0.031	none
Type.CLRole.two.sided.24	w/o-gamified.Master	6	-0.12	8.17	49.0	26.0	-0.12	0.931	0.031	none
Type.CLRole.less.15	w/o-gamified.Apprentice	13	0.09	10.23	133.0	42.0	0.26	0.608	0.061	none
Type.CLRole.less.25	w/o-gamified.Master	6	-0.12	9.50	57.0	42.0	0.26	0.608	0.061	none
Type.CLRole.greater.15	w/o-gamified.Apprentice	13	0.09	10.23	133.0	42.0	0.26	0.407	0.061	none
Type.CLRole.greater.25	w/o-gamified.Master	6	-0.12	9.50	57.0	42.0	0.26	0.407	0.061	none

Table 2: *(continued)*

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	w/o-gamified.Apprentice	13	0.09	10.23	133.0	42.0	0.26	0.814	0.061	none
Type:CLRole.two.sided.25	w/o-gamified.Master	6	-0.12	9.50	57.0	42.0	0.26	0.814	0.061	none