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

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	104.914	0.477	0.490	
Type:CLRole	1	22.802	0.104	0.747	
Type:Type:CLRole	1	28.383	0.129	0.719	
Type:Residuals	47	10831.401			

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 students with effective participation

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	30	0.01	24.80	744.0	279.0	−0.69	0.248	0.097	none
Type.less.2	ont-gamified	21	0.13	27.71	582.0	279.0	−0.69	0.248	0.097	none
Type.greater.1	non-gamified	30	0.01	24.80	744.0	279.0	−0.69	0.755	0.097	none
Type.greater.2	ont-gamified	21	0.13	27.71	582.0	279.0	−0.69	0.755	0.097	none
Type.two.sided.1	non-gamified	30	0.01	24.80	744.0	279.0	−0.69	0.496	0.097	none
Type.two.sided.2	ont-gamified	21	0.13	27.71	582.0	279.0	−0.69	0.496	0.097	none
Type:CLRole.less.1	non-gamified.Apprentice	19	−0.11	14.87	282.5	92.5	−0.52	0.308	0.095	none
Type:CLRole.less.2	non-gamified.Master	11	0.01	16.59	182.5	92.5	−0.52	0.308	0.095	none
Type:CLRole.greater.1	non-gamified.Apprentice	19	−0.11	14.87	282.5	92.5	−0.52	0.699	0.095	none
Type:CLRole.greater.2	non-gamified.Master	11	0.01	16.59	182.5	92.5	−0.52	0.699	0.095	none
Type:CLRole.two.sided.1	non-gamified.Apprentice	19	−0.11	14.87	282.5	92.5	−0.52	0.617	0.095	none
Type:CLRole.two.sided.2	non-gamified.Master	11	0.01	16.59	182.5	92.5	−0.52	0.617	0.095	none
Type:CLRole.less.11	non-gamified.Apprentice	19	−0.11	15.71	298.5	108.5	−0.58	0.288	0.102	small
Type:CLRole.less.21	ont-gamified.Apprentice	13	0.41	17.65	229.5	108.5	−0.58	0.288	0.102	small
Type:CLRole.greater.11	non-gamified.Apprentice	19	−0.11	15.71	298.5	108.5	−0.58	0.719	0.102	small
Type:CLRole.greater.21	ont-gamified.Apprentice	13	0.41	17.65	229.5	108.5	−0.58	0.719	0.102	small
Type:CLRole.two.sided.11	non-gamified.Apprentice	19	−0.11	15.71	298.5	108.5	−0.58	0.576	0.102	small
Type:CLRole.two.sided.21	ont-gamified.Apprentice	13	0.41	17.65	229.5	108.5	−0.58	0.576	0.102	small
Type:CLRole.less.12	non-gamified.Apprentice	19	−0.11	13.24	251.5	61.5	−0.77	0.228	0.149	small
Type:CLRole.less.22	ont-gamified.Master	8	0.07	15.81	126.5	61.5	−0.77	0.228	0.149	small
Type:CLRole.greater.12	non-gamified.Apprentice	19	−0.11	13.24	251.5	61.5	−0.77	0.780	0.149	small
Type:CLRole.greater.22	ont-gamified.Master	8	0.07	15.81	126.5	61.5	−0.77	0.780	0.149	small
Type:CLRole.two.sided.12	non-gamified.Apprentice	19	−0.11	13.24	251.5	61.5	−0.77	0.456	0.149	small
Type:CLRole.two.sided.22	ont-gamified.Master	8	0.07	15.81	126.5	61.5	−0.77	0.456	0.149	small
Type:CLRole.less.13	non-gamified.Master	11	0.01	12.09	133.0	67.0	−0.26	0.405	0.053	none
Type:CLRole.less.23	ont-gamified.Apprentice	13	0.41	12.85	167.0	67.0	−0.26	0.405	0.053	none
Type:CLRole.greater.13	non-gamified.Master	11	0.01	12.09	133.0	67.0	−0.26	0.607	0.053	none
Type:CLRole.greater.23	ont-gamified.Apprentice	13	0.41	12.85	167.0	67.0	−0.26	0.607	0.053	none
Type:CLRole.two.sided.13	non-gamified.Master	11	0.01	12.09	133.0	67.0	−0.26	0.809	0.053	none
Type:CLRole.two.sided.23	ont-gamified.Apprentice	13	0.41	12.85	167.0	67.0	−0.26	0.809	0.053	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	13	0.41	11.38	148.0	57.0	0.36	0.646	0.079	none
Type:CLRole.less.25	ont-gamified.Master	8	0.07	10.38	83.0	57.0	0.36	0.646	0.079	none
Type:CLRole.greater.15	ont-gamified.Apprentice	13	0.41	11.38	148.0	57.0	0.36	0.367	0.079	none
Type:CLRole.greater.25	ont-gamified.Master	8	0.07	10.38	83.0	57.0	0.36	0.367	0.079	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	13	0.41	11.38	148.0	57.0	0.36	0.735	0.079	none
Type:CLRole.two.sided.25	ont-gamified.Master	8	0.07	10.38	83.0	57.0	0.36	0.735	0.079	none