Summary of nonparametric statistics analysis for the latent trait estimates of Pressure/Tension in the first study for students with effective participation

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Table 1: Summary of Scheirer-Ray-Hare results for the latent trait estimates of Pressure/Tension in the first study for students with effective participation

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	197.486	1.069	0.301	
Type:CLRole	1	114.083	0.618	0.432	
Type:Type:CLRole	1	1034.002	5.599	0.018	*
Type:Residuals	44	7333.929			

Signif. codes: 0 "**" 0.01 "*" 0.05

Table 2: Descriptive statistic of the pair wilcoxon analysis for the latent trait estimates of Pressure/Tension in the first study for students with effective participation

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.greater.1	non-gamified.Apprentice	10	0.81	16.15	161.5	106.5	2.29	0.011	0.467	medium
Type:CLRole.greater.2	ont-gamified.Apprentice	14	−0.91	9.89	138.5	106.5	2.29	0.011	0.467	medium
Type:CLRole.two.sided.1	non-gamified.Apprentice	10	0.81	16.15	161.5	106.5	2.29	0.021	0.467	medium
Type:CLRole.two.sided.2	ont-gamified.Apprentice	14	−0.91	9.89	138.5	106.5	2.29	0.021	0.467	medium
Type:CLRole.less.1	ont-gamified.Apprentice	14	−0.91	11.29	158.0	53.0	−2.18	0.014	0.413	medium
Type:CLRole.less.2	ont-gamified.Master	14	0.82	17.71	248.0	53.0	−2.18	0.014	0.413	medium
Type:CLRole.two.sided.11	ont-gamified.Apprentice	14	−0.91	11.29	158.0	53.0	−2.18	0.027	0.413	medium
Type:CLRole.two.sided.21	ont-gamified.Master	14	0.82	17.71	248.0	53.0	−2.18	0.027	0.413	medium

Table 3: Full descriptive statistic of the pair wilcoxon analysis for the latent trait estimates of Pressure/Tension in the first study for students with effective participation

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	20	0.50	26.90	538.0	328.0	1.03	0.849	0.149	small
Type.less.2	ont-gamified	28	−0.01	22.79	638.0	328.0	1.03	0.849	0.149	small
Type.greater.1	non-gamified	20	0.50	26.90	538.0	328.0	1.03	0.153	0.149	small
Type.greater.2	ont-gamified	28	−0.01	22.79	638.0	328.0	1.03	0.153	0.149	small
Type.two.sided.1	non-gamified	20	0.50	26.90	538.0	328.0	1.03	0.307	0.149	small
Type.two.sided.2	ont-gamified	28	−0.01	22.79	638.0	328.0	1.03	0.307	0.149	small
Type:CLRole.less.1	non-gamified.Apprentice	10	0.81	12.10	121.0	66.0	1.23	0.891	0.274	small
Type:CLRole.less.2	non-gamified.Master	10	0.18	8.90	89.0	66.0	1.23	0.891	0.274	small
Type:CLRole.greater.1	non-gamified.Apprentice	10	0.81	12.10	121.0	66.0	1.23	0.117	0.274	small
Type:CLRole.greater.2	non-gamified.Master	10	0.18	8.90	89.0	66.0	1.23	0.117	0.274	small
Type:CLRole.two.sided.1	non-gamified.Apprentice	10	0.81	12.10	121.0	66.0	1.23	0.234	0.274	small
Type:CLRole.two.sided.2	non-gamified.Master	10	0.18	8.90	89.0	66.0	1.23	0.234	0.274	small
Type:CLRole.less.11	non-gamified.Apprentice	10	0.81	16.15	161.5	106.5	2.29	0.990	0.467	medium
Type:CLRole.less.21	ont-gamified.Apprentice	14	−0.91	9.89	138.5	106.5	2.29	0.990	0.467	medium
Type:CLRole.greater.11	non-gamified.Apprentice	10	0.81	16.15	161.5	106.5	2.29	0.011	0.467	medium
Type:CLRole.greater.21	ont-gamified.Apprentice	14	−0.91	9.89	138.5	106.5	2.29	0.011	0.467	medium
Type:CLRole.two.sided.11	non-gamified.Apprentice	10	0.81	16.15	161.5	106.5	2.29	0.021	0.467	medium
Type:CLRole.two.sided.21	ont-gamified.Apprentice	14	−0.91	9.89	138.5	106.5	2.29	0.021	0.467	medium
Type:CLRole.less.12	non-gamified.Apprentice	10	0.81	13.60	136.0	81.0	0.65	0.746	0.133	small
Type:CLRole.less.22	ont-gamified.Master	14	0.82	11.71	164.0	81.0	0.65	0.746	0.133	small
Type:CLRole.greater.12	non-gamified.Apprentice	10	0.81	13.60	136.0	81.0	0.65	0.265	0.133	small
Type:CLRole.greater.22	ont-gamified.Master	14	0.82	11.71	164.0	81.0	0.65	0.265	0.133	small
Type:CLRole.two.sided.12	non-gamified.Apprentice	10	0.81	13.60	136.0	81.0	0.65	0.530	0.133	small
Type:CLRole.two.sided.22	ont-gamified.Master	14	0.82	11.71	164.0	81.0	0.65	0.530	0.133	small
Type:CLRole.less.13	non-gamified.Master	10	0.18	14.40	144.0	89.0	1.21	0.888	0.248	small
Type:CLRole.less.23	ont-gamified.Apprentice	14	−0.91	11.14	156.0	89.0	1.21	0.888	0.248	small
Type:CLRole.greater.13	non-gamified.Master	10	0.18	14.40	144.0	89.0	1.21	0.117	0.248	small
Type:CLRole.greater.23	ont-gamified.Apprentice	14	−0.91	11.14	156.0	89.0	1.21	0.117	0.248	small
Type:CLRole.two.sided.13	non-gamified.Master	10	0.18	14.40	144.0	89.0	1.21	0.233	0.248	small
Type:CLRole.two.sided.23	ont-gamified.Apprentice	14	−0.91	11.14	156.0	89.0	1.21	0.233	0.248	small
Type:CLRole.less.14	non-gamified.Master	10	0.18	10.65	106.5	51.5	−1.10	0.142	0.225	small
Type:CLRole.less.24	ont-gamified.Master	14	0.82	13.82	193.5	51.5	−1.10	0.142	0.225	small
Type:CLRole.greater.14	non-gamified.Master	10	0.18	10.65	106.5	51.5	−1.10	0.864	0.225	small
Type:CLRole.greater.24	ont-gamified.Master	14	0.82	13.82	193.5	51.5	−1.10	0.864	0.225	small
Type:CLRole.two.sided.14	non-gamified.Master	10	0.18	10.65	106.5	51.5	−1.10	0.284	0.225	small
Type:CLRole.two.sided.24	ont-gamified.Master	14	0.82	13.82	193.5	51.5	−1.10	0.284	0.225	small
Type:CLRole.less.15	ont-gamified.Apprentice	14	−0.91	11.29	158.0	53.0	−2.18	0.014	0.413	medium
Type:CLRole.less.25	ont-gamified.Master	14	0.82	17.71	248.0	53.0	−2.18	0.014	0.413	medium
Type:CLRole.greater.15	ont-gamified.Apprentice	14	−0.91	11.29	158.0	53.0	−2.18	0.987	0.413	medium
Type:CLRole.greater.25	ont-gamified.Master	14	0.82	17.71	248.0	53.0	−2.18	0.987	0.413	medium

Table 3: *(continued)*

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	ont-gamified.Apprentice	14	−0.91	11.29	158.0	53.0	−2.18	0.027	0.413	medium
Type:CLRole.two.sided.25	ont-gamified.Master	14	0.82	17.71	248.0	53.0	−2.18	0.027	0.413	medium

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	ont-gamified.Apprentice	14	−0.91	11.29	158.0	53.0	−2.18	0.027	0.413	medium
Type:CLRole.two.sided.25	ont-gamified.Master	14	0.82	17.71	248.0	53.0	−2.18	0.027	0.413	medium