

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

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	123.429	3.242	0.072	
Type:CLRole	1	0.525	0.014	0.907	
Type:Type:CLRole	1	1.371	0.036	0.849	
Type:Residuals	17	636.175			

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 pilot study for students with effective participation

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.greater.1	non-gamified	7	0.35	14.43	101	73	1.8	0.038	0.393	medium
Type.greater.2	ont-gamified	14	-0.13	9.29	130	73	1.8	0.038	0.393	medium

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

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type.less.1	non-gamified	7	0.35	14.43	101.0	73.0	1.80	0.966	0.393	medium
Type.less.2	ont-gamified	14	-0.13	9.29	130.0	73.0	1.80	0.966	0.393	medium
Type.greater.1	non-gamified	7	0.35	14.43	101.0	73.0	1.80	0.038	0.393	medium
Type.greater.2	ont-gamified	14	-0.13	9.29	130.0	73.0	1.80	0.038	0.393	medium
Type.two.sided.1	non-gamified	7	0.35	14.43	101.0	73.0	1.80	0.074	0.393	medium
Type.two.sided.2	ont-gamified	14	-0.13	9.29	130.0	73.0	1.80	0.074	0.393	medium
Type:CLRole.less.1	non-gamified.Apprentice	5	0.35	4.00	20.0	5.0	0.00	0.571	0.000	none
Type:CLRole.less.2	non-gamified.Master	2	0.35	4.00	8.0	5.0	0.00	0.571	0.000	none
Type:CLRole.greater.1	non-gamified.Apprentice	5	0.35	4.00	20.0	5.0	0.00	0.571	0.000	none
Type:CLRole.greater.2	non-gamified.Master	2	0.35	4.00	8.0	5.0	0.00	0.571	0.000	none
Type:CLRole.two.sided.1	non-gamified.Apprentice	5	0.35	4.00	20.0	5.0	0.00	1.000	0.000	none
Type:CLRole.two.sided.2	non-gamified.Master	2	0.35	4.00	8.0	5.0	0.00	1.000	0.000	none
Type:CLRole.less.11	non-gamified.Apprentice	5	0.35	10.40	52.0	37.0	1.48	0.936	0.383	medium
Type:CLRole.less.21	ont-gamified.Apprentice	10	-0.27	6.80	68.0	37.0	1.48	0.936	0.383	medium
Type:CLRole.greater.11	non-gamified.Apprentice	5	0.35	10.40	52.0	37.0	1.48	0.079	0.383	medium
Type:CLRole.greater.21	ont-gamified.Apprentice	10	-0.27	6.80	68.0	37.0	1.48	0.079	0.383	medium
Type:CLRole.two.sided.11	non-gamified.Apprentice	5	0.35	10.40	52.0	37.0	1.48	0.154	0.383	medium
Type:CLRole.two.sided.21	ont-gamified.Apprentice	10	-0.27	6.80	68.0	37.0	1.48	0.154	0.383	medium
Type:CLRole.less.12	non-gamified.Apprentice	5	0.35	5.70	28.5	13.5	0.86	0.810	0.287	small
Type:CLRole.less.22	ont-gamified.Master	4	-0.13	4.12	16.5	13.5	0.86	0.810	0.287	small
Type:CLRole.greater.12	non-gamified.Apprentice	5	0.35	5.70	28.5	13.5	0.86	0.222	0.287	small
Type:CLRole.greater.22	ont-gamified.Master	4	-0.13	4.12	16.5	13.5	0.86	0.222	0.287	small
Type:CLRole.two.sided.12	non-gamified.Apprentice	5	0.35	5.70	28.5	13.5	0.86	0.444	0.287	small
Type:CLRole.two.sided.22	ont-gamified.Master	4	-0.13	4.12	16.5	13.5	0.86	0.444	0.287	small
Type:CLRole.less.13	non-gamified.Master	2	0.35	9.25	18.5	15.5	1.19	0.879	0.344	medium
Type:CLRole.less.23	ont-gamified.Apprentice	10	-0.27	5.95	59.5	15.5	1.19	0.879	0.344	medium
Type:CLRole.greater.13	non-gamified.Master	2	0.35	9.25	18.5	15.5	1.19	0.152	0.344	medium
Type:CLRole.greater.23	ont-gamified.Apprentice	10	-0.27	5.95	59.5	15.5	1.19	0.152	0.344	medium
Type:CLRole.two.sided.13	non-gamified.Master	2	0.35	9.25	18.5	15.5	1.19	0.303	0.344	medium
Type:CLRole.two.sided.23	ont-gamified.Apprentice	10	-0.27	5.95	59.5	15.5	1.19	0.303	0.344	medium
Type:CLRole.less.14	non-gamified.Master	2	0.35	5.00	10.0	7.0	1.39	0.933	0.567	large
Type:CLRole.less.24	ont-gamified.Master	4	-0.13	2.75	11.0	7.0	1.39	0.933	0.567	large
Type:CLRole.greater.14	non-gamified.Master	2	0.35	5.00	10.0	7.0	1.39	0.133	0.567	large
Type:CLRole.greater.24	ont-gamified.Master	4	-0.13	2.75	11.0	7.0	1.39	0.133	0.567	large
Type:CLRole.two.sided.14	non-gamified.Master	2	0.35	5.00	10.0	7.0	1.39	0.267	0.567	large
Type:CLRole.two.sided.24	ont-gamified.Master	4	-0.13	2.75	11.0	7.0	1.39	0.267	0.567	large
Type:CLRole.less.15	ont-gamified.Apprentice	10	-0.27	7.55	75.5	20.5	0.07	0.552	0.019	none
Type:CLRole.less.25	ont-gamified.Master	4	-0.13	7.38	29.5	20.5	0.07	0.552	0.019	none
Type:CLRole.greater.15	ont-gamified.Apprentice	10	-0.27	7.55	75.5	20.5	0.07	0.498	0.019	none
Type:CLRole.greater.25	ont-gamified.Master	4	-0.13	7.38	29.5	20.5	0.07	0.498	0.019	none

Table 3: *(continued)*

	Group	N	Median	Mean.Ranks	Sum.Ranks	U	Z	p.value	r	magnitude
Type:CLRole.two.sided.15	ont-gamified.Apprentice	10	-0.27	7.55	75.5	20.5	0.07	0.983	0.019	none
Type:CLRole.two.sided.25	ont-gamified.Master	4	-0.13	7.38	29.5	20.5	0.07	0.983	0.019	none