

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

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	208.305	1.326	0.249	
Type:CLRole	1	34.106	0.217	0.641	
Type:Type:CLRole	1	281.433	1.792	0.181	
Type:Residuals	39	6071.656			

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

Table 2: Full descriptive statistic of the pair wilcoxon analysis for the latent trait estimates of Perceived Choice 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	24	0.53	23.96	575.0	275.0	1.15	0.875	0.176	small
Type.less.2	19	0.09	19.53	371.0	275.0	1.15	0.875	0.176	small
Type.greater.1	24	0.53	23.96	575.0	275.0	1.15	0.127	0.176	small
Type.greater.2	19	0.09	19.53	371.0	275.0	1.15	0.127	0.176	small
Type.two.sided.1	24	0.53	23.96	575.0	275.0	1.15	0.255	0.176	small
Type.two.sided.2	19	0.09	19.53	371.0	275.0	1.15	0.255	0.176	small
Type.CLRole.less.1	15	0.39	11.20	168.0	48.0	-1.17	0.128	0.238	small
Type.CLRole.less.2	9	0.95	14.67	132.0	48.0	-1.17	0.128	0.238	small
Type.CLRole.greater.1	15	0.39	11.20	168.0	48.0	-1.17	0.878	0.238	small
Type.CLRole.greater.2	9	0.95	14.67	132.0	48.0	-1.17	0.878	0.238	small
Type.CLRole.two.sided.1	15	0.39	11.20	168.0	48.0	-1.17	0.256	0.238	small
Type.CLRole.two.sided.2	9	0.95	14.67	132.0	48.0	-1.17	0.256	0.238	small
Type.CLRole.less.11	15	0.39	14.63	219.5	99.5	0.09	0.541	0.017	none
Type.CLRole.less.21	13	0.09	14.35	186.5	99.5	0.09	0.541	0.017	none
Type.CLRole.greater.11	15	0.39	14.63	219.5	99.5	0.09	0.468	0.017	none
Type.CLRole.greater.21	13	0.09	14.35	186.5	99.5	0.09	0.468	0.017	none
Type.CLRole.two.sided.11	15	0.39	14.63	219.5	99.5	0.09	0.937	0.017	none
Type.CLRole.two.sided.21	13	0.09	14.35	186.5	99.5	0.09	0.937	0.017	none
Type.CLRole.less.12	15	0.39	11.70	175.5	55.5	0.82	0.795	0.179	small
Type.CLRole.less.22	6	-0.33	9.25	55.5	55.5	0.82	0.795	0.179	small
Type.CLRole.greater.12	15	0.39	11.70	175.5	55.5	0.82	0.217	0.179	small
Type.CLRole.greater.22	6	-0.33	9.25	55.5	55.5	0.82	0.217	0.179	small
Type.CLRole.two.sided.12	15	0.39	11.70	175.5	55.5	0.82	0.433	0.179	small
Type.CLRole.two.sided.22	6	-0.33	9.25	55.5	55.5	0.82	0.433	0.179	small
Type.CLRole.less.13	9	0.95	13.83	124.5	79.5	1.41	0.921	0.300	small
Type.CLRole.less.23	13	0.09	9.88	128.5	79.5	1.41	0.921	0.300	small
Type.CLRole.greater.13	9	0.95	13.83	124.5	79.5	1.41	0.084	0.300	small
Type.CLRole.greater.23	13	0.09	9.88	128.5	79.5	1.41	0.084	0.300	small
Type.CLRole.two.sided.13	9	0.95	13.83	124.5	79.5	1.41	0.168	0.300	small
Type.CLRole.two.sided.23	13	0.09	9.88	128.5	79.5	1.41	0.168	0.300	small
Type.CLRole.less.14	9	0.95	9.50	85.5	40.5	1.60	0.947	0.412	medium
Type.CLRole.less.24	6	-0.33	5.75	34.5	40.5	1.60	0.947	0.412	medium
Type.CLRole.greater.14	9	0.95	9.50	85.5	40.5	1.60	0.060	0.412	medium
Type.CLRole.greater.24	6	-0.33	5.75	34.5	40.5	1.60	0.060	0.412	medium
Type.CLRole.two.sided.14	9	0.95	9.50	85.5	40.5	1.60	0.121	0.412	medium
Type.CLRole.two.sided.24	6	-0.33	5.75	34.5	40.5	1.60	0.121	0.412	medium
Type.CLRole.less.15	13	0.09	10.69	139.0	48.0	0.79	0.787	0.182	small
Type.CLRole.less.25	6	-0.33	8.50	51.0	48.0	0.79	0.787	0.182	small
Type.CLRole.greater.15	13	0.09	10.69	139.0	48.0	0.79	0.227	0.182	small
Type.CLRole.greater.25	6	-0.33	8.50	51.0	48.0	0.79	0.227	0.182	small

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	10.69	139.0	48.0	0.79	0.452	0.182	small
Type:CLRole.two.sided.25	w/o-gamified.Master	6	-0.33	8.50	51.0	48.0	0.79	0.452	0.182	small