

Summary of nonparametric statistics analysis for the scores of Perceived Choice in the first study for students with effective participation

Table 1: Summary of Scheirer-Ray-Hare results for the scores of Perceived Choice in the first study for students with effective participation

	Df	Sum Sq	H	p.value	Sig
Type					
Type:Type	1	420.000	2.153	0.142	
Type:CLRole	1	0.187	0.001	0.975	
Type:Type:CLRole	1	22.634	0.116	0.733	
Type:Residuals	44	8726.179			

Signif. codes: 0 ‘***’ 0.01 ‘**’ 0.05

Table 2: Full descriptive statistic of the pair wilcoxon analysis for the scores of Perceived Choice 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	5.1	21.00	420.0	210.0	-1.47	0.072	0.212	small
Type.less.2	ont-gamified	28	5.5	27.00	756.0	210.0	-1.47	0.072	0.212	small
Type.greater.1	non-gamified	20	5.1	21.00	420.0	210.0	-1.47	0.929	0.212	small
Type.greater.2	ont-gamified	28	5.5	27.00	756.0	210.0	-1.47	0.929	0.212	small
Type.two.sided.1	non-gamified	20	5.1	21.00	420.0	210.0	-1.47	0.145	0.212	small
Type.two.sided.2	ont-gamified	28	5.5	27.00	756.0	210.0	-1.47	0.145	0.212	small
Type:CLRole.less.1	non-gamified.Apprentice	10	5.0	10.55	105.5	50.5	0.04	0.522	0.008	none
Type:CLRole.less.2	non-gamified.Master	10	5.1	10.45	104.5	50.5	0.04	0.522	0.008	none
Type:CLRole.greater.1	non-gamified.Apprentice	10	5.0	10.55	105.5	50.5	0.04	0.493	0.008	none
Type:CLRole.greater.2	non-gamified.Master	10	5.1	10.45	104.5	50.5	0.04	0.493	0.008	none
Type:CLRole.two.sided.1	non-gamified.Apprentice	10	5.0	10.55	105.5	50.5	0.04	0.985	0.008	none
Type:CLRole.two.sided.2	non-gamified.Master	10	5.1	10.45	104.5	50.5	0.04	0.985	0.008	none
Type:CLRole.less.11	non-gamified.Apprentice	10	5.0	11.60	116.0	61.0	-0.53	0.307	0.108	small
Type:CLRole.less.21	ont-gamified.Apprentice	14	5.6	13.14	184.0	61.0	-0.53	0.307	0.108	small
Type:CLRole.greater.11	non-gamified.Apprentice	10	5.0	11.60	116.0	61.0	-0.53	0.703	0.108	small
Type:CLRole.greater.21	ont-gamified.Apprentice	14	5.6	13.14	184.0	61.0	-0.53	0.703	0.108	small
Type:CLRole.two.sided.11	non-gamified.Apprentice	10	5.0	11.60	116.0	61.0	-0.53	0.614	0.108	small
Type:CLRole.two.sided.21	ont-gamified.Apprentice	14	5.6	13.14	184.0	61.0	-0.53	0.614	0.108	small
Type:CLRole.less.12	non-gamified.Apprentice	10	5.0	10.60	106.0	51.0	-1.12	0.138	0.228	small
Type:CLRole.less.22	ont-gamified.Master	14	5.5	13.86	194.0	51.0	-1.12	0.138	0.228	small
Type:CLRole.greater.12	non-gamified.Apprentice	10	5.0	10.60	106.0	51.0	-1.12	0.868	0.228	small
Type:CLRole.greater.22	ont-gamified.Master	14	5.5	13.86	194.0	51.0	-1.12	0.868	0.228	small
Type:CLRole.two.sided.12	non-gamified.Apprentice	10	5.0	10.60	106.0	51.0	-1.12	0.276	0.228	small
Type:CLRole.two.sided.22	ont-gamified.Master	14	5.5	13.86	194.0	51.0	-1.12	0.276	0.228	small
Type:CLRole.less.13	non-gamified.Master	10	5.1	10.60	106.0	51.0	-1.12	0.138	0.228	small
Type:CLRole.less.23	ont-gamified.Apprentice	14	5.6	13.86	194.0	51.0	-1.12	0.138	0.228	small
Type:CLRole.greater.13	non-gamified.Master	10	5.1	10.60	106.0	51.0	-1.12	0.869	0.228	small
Type:CLRole.greater.23	ont-gamified.Apprentice	14	5.6	13.86	194.0	51.0	-1.12	0.869	0.228	small
Type:CLRole.two.sided.13	non-gamified.Master	10	5.1	10.60	106.0	51.0	-1.12	0.276	0.228	small
Type:CLRole.two.sided.23	ont-gamified.Apprentice	14	5.6	13.86	194.0	51.0	-1.12	0.276	0.228	small
Type:CLRole.less.14	non-gamified.Master	10	5.1	10.20	102.0	47.0	-1.35	0.093	0.276	small
Type:CLRole.less.24	ont-gamified.Master	14	5.5	14.14	198.0	47.0	-1.35	0.093	0.276	small
Type:CLRole.greater.14	non-gamified.Master	10	5.1	10.20	102.0	47.0	-1.35	0.912	0.276	small
Type:CLRole.greater.24	ont-gamified.Master	14	5.5	14.14	198.0	47.0	-1.35	0.912	0.276	small
Type:CLRole.two.sided.14	non-gamified.Master	10	5.1	10.20	102.0	47.0	-1.35	0.185	0.276	small
Type:CLRole.two.sided.24	ont-gamified.Master	14	5.5	14.14	198.0	47.0	-1.35	0.185	0.276	small
Type:CLRole.less.15	ont-gamified.Apprentice	14	5.6	14.36	201.0	96.0	-0.09	0.468	0.017	none
Type:CLRole.less.25	ont-gamified.Master	14	5.5	14.64	205.0	96.0	-0.09	0.468	0.017	none
Type:CLRole.greater.15	ont-gamified.Apprentice	14	5.6	14.36	201.0	96.0	-0.09	0.541	0.017	none
Type:CLRole.greater.25	ont-gamified.Master	14	5.5	14.64	205.0	96.0	-0.09	0.541	0.017	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	14	5.6	14.36	201.0	96.0	−0.09	0.937	0.017	none
Type:CLRole.two.sided.25	ont-gamified.Master	14	5.5	14.64	205.0	96.0	−0.09	0.937	0.017	none